

***ASSESSMENT OF KNOWLEDGE, ATTITUDE AND PRACTICE TOWARDS  
THE FIRST AID MANAGEMENT OF FOREIGN BODY ASPIRATION AND  
OBSTRUCTION AMONG THE COMMUNITY LIVING IN ADDIS ALEM  
TOWN OF EJERE WEREDA OF WEST SHEWA ZONE 2014/2015.***

***BY***

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***RESEARCH PAPER SUBMITTED TO ADDIS ABABA UNIVERSITY  
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MEDICINE***

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***ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE AND  
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***JULY, 2015***

***ADDIS ABABA, ETHIO***

## **ABSTRACT**

**Background:** Foreign body aspiration (FBA) is one of the main causes of accidental death in childhood and foreign bodies (FBs) in the aerodigestive tract are important causes of morbidity and mortality and pose diagnostic and therapeutic challenges. The shortages of community awareness toward, the FBA aggravate the problems. There are no published study results on this topic; so this study may help as a baseline to find the community awareness toward the management of foreign body aspiration.

**Objective:** Assessed the knowledge, attitude and practice of community living in Addis Alem Town of Ejere Wereda in West Shewa Zone toward the management (first aid) of FBA 2014/2015

**Methods:** - Community based cross sectional study was used from January 01 to 30/2015. The data obtained was edited manually, entered into the computer and analyzed using the Statistical Package for the Social Sciences (SPSS) version 16.00. Frequencies were generated and Bivariate logistic regression analysis was used to test associations between categorical variables.

**Result:-** The result were summarized and presented by tables, charts and graphs. Finally based on the study findings Conclusions and recommendations was forwarded to the concerned body.

**Discussion/Implication:** - Several insights were gained from this cross sectional study. It is hoped that the information gleaned from this study will assist the concerning bodies who are responsible and beneficial.

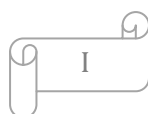
**Recommendation:-** Several recommendations are made from this study in this section; while this study was successful in answering the research questions, upon reflection, the researcher would recommend a couple of points for consideration to those that may try to reproduce this study.

**References:-** Different references used were mentioned in this survey.

**Annex:** - Questionnaires used in this survey were mentioned at the end of the documentations of the survey.

**Challenge and limitation:-** there were same challenges and limitation were mentioned in the survey done

**Key Words:** Foreign body aspiration, community, awareness, management (First Aid), attitude, practice.



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## LIST OF ABBREVIATIONS

<b>AAU</b>	Addis Ababa University
<b>BscN</b>	Bachelor of Science in Nursing
<b>CCN</b>	Critical care nursing
<b>EM</b>	Emergency Medicine
<b>FBA</b>	Foreign body aspiration
<b>FBs</b>	Foreign bodies
<b>KAP</b>	Knowledge, attitude and practice
<b>SPSS</b>	Statistical Package for Social Sciences
<b>WHO</b>	World Health Organization.
<b>FBAO</b>	Foreign Body Aspiration and Obstruction

## ***AKNOWLEDGEMENT***

First and foremost, thanks are to God, to whom I relate any success in achieving any work in my life. Next I would like to gratefully acknowledge my Advisors Dr Muluwork and Mebrat for their unreserved and constructive comments for writing this study; without their support this work has been impossible.

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Last, but not least I would like to express my special gratitude to Addis Alem Town Administrative for their cooperation and willingness to give important information about their communities.

Finally I would like to thank AAU Department of EM instructors and all my classmates for their constructive comments, sharing of ideas and suggestions.

## **CHAPTER ONE**

### **1 INTRODUCTION**

#### **1.1 BACK GROUND OF THE STUDY**

*World J Gastroenterol study identified a total of 100 patients (42 male, 58 female; mean age 38 years, range 16-88 years) who were admitted with a complaint of foreign body ingestion. Of those, 65 (65%) localized their complaints to the pharynx, while 35 (35%) told that they had ingested the foreign bodies. Among the list of complaints, 53 (53%) patients had difficulty swallowing; 33 (33%) had pain in the throat; 6 (6%) had difficulty breathing; 5 (5%) had abdominal pain; 4 (4%) had vomiting; 4 (4%) had bleeding from the mouth; 2 (2%) had a foreign body sensation in the throat; 2 (2%) had coughing; and 1 (1%) had chest pain. The incident was self-reported as accidental in all patients. When facilitating factors were considered, 3 (3%) patients were undergoing dental interventions, and another 3 (3%) patients had dental plates. None of the study patients had any established diagnosis of psychiatric disease or history of substance abuse, alcohol or sedative use. Physical examination revealed oropharyngeal foreign bodies in 7 patients, epigastric tenderness in 1 patient, and rhonchus in 1 patient. (1)*

*Journal of Indian Association of Pediatric Surgeons indicates the awareness levels about FBA were abysmally low in the population that was studied. Twenty-five percentage of the study population had not heard about this condition, and 46% could not recognize a FBA if it happened. Also, 76% of the study group did not know about the attendant dangers of this condition. (2, 3)*

*FBA remains a huge problem and a major cause of accidental death in children around the world. The age group, 1–5 years, is most vulnerable for FBA. Delays in diagnosis occur seven times more commonly in aspirations than in ingestions. Delay in diagnosis can lead to serious pulmonary damage and increased risk of long-term complications. Foreign body aspiration (FBA) is a frequent cause of accidental death in children below the age of 6 years all over the world, as well as adults. It is considered a true emergency in the pediatric age group and leads up to 300 deaths per year in the USA. A large number of FBAs in the tracheobronchial tree*

*occur in the Indian sub-continent 2002. Educational campaigns as a public health measure in some countries have brought down the incidence of FBA as well as the associated mortality.(3)*

*In New Zealand during 2002-09, 16 children and young people died from foreign body aspiration, equating to a rate of 0.13 per 100,000. There were 13 male and three female deaths. The median age of death was 4.9 years (range 1- 20 years). Thirteen deaths were in children under six years of age, with the remaining three young people being over 15 years. (4)*

*The Red Cross War Memorial Children's Hospital is the only children's hospital in South Africa. A retrospective study was performed using the database of a total of 3677 children patients presenting with foreign bodies. The hospital folders were reviewed using a standardized data extraction form. Only foreign bodies aspirated or ingested were included. Three hundred and forty (340) cases were analyzed. Both sexes were equally affected. The ages of children included in the study ranged between 0.9 and 12 years, with a mean of 3 years. At the age of 2 years there was a peak in incidence (25% of all cases). Thirty-six percent (36%) had no symptoms. Fifty seven per cent (57%) of ingested foreign bodies were removed surgically, 19% were left in site, and 14% spontaneously dislodged and only 1% was removed by Foley catheter manipulation. A presentation with a foreign body is fairly common in the hospital's patient population, representing approximately 4.2% of all cases. The majority of ingested foreign bodies produced mild or no symptoms, required surgical removal, but had no complications. (10)*

*Home related injuries among children in Egypt shows that the most common forms of injury among children aged 3 - 6 years old (66.7%) of injured children suffered foreign body aspiration.(11)*

*Study done by Nigerian Medical Journal (Journal of the Nigeria Medical Association) on thirty five patient, [18 (51.4%) males and 17 (48.6%) females, aged 6 months-10 years] with a mean age of 5.1 years and median of 5 years (+/- 3.0 Standard Deviation). The most affected age group with 31.4% is 3-5 years. Adults account for only about 20% of the reported cases of aspirations. The leading causes are associated with altered mental status, trauma with a decreased level of consciousness, and impaired airway reflexes, when airway protective mechanisms function inadequately or facial traumas. However, there is a distinct group of*

*patients such as young Muslim ladies who frequently use Hijab pins who are being recognized and are at risk. (12)*

*Aerodigestive foreign bodies in adult Ethiopian patients; a study at Tikur Anbessa Hospital, done on a total of 32 patients (18 males and 14 females) were treated in the hospital during the study period and included in the study. Their mean age was  $28.0 \pm 12.74$  (range, 15–70) years. Twenty-one (65.4%) of patients were aged between 15 and 30. Nineteen (59.3%) patients presented to the hospital within 24 hours and 4 (12.5%) patients came after five days. One particular patient came after 2 months. The FBs were impacted at the esophagus in 18 (56.2%) patients (9 in the upper esophagus and 9 in the middle esophagus), at the pharynx in 7 (21.8%) patients, and at the air way in 7 (21.8%) patients (3 left main bronchi, 3 right main bronchi, and 1 trachea. (13)*

## **1.2) STATEMENT OF THE PROBLEM**

*Foreign bodies (FBs) are 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 centres. 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. Most FB ingestions in adults are related to eating, leading to either bone or meat bolus impaction, while poor dentition, inadequate chewing, and eating while being sedated can precipitate this problem. Food impaction may also indicate obstructive esophageal preexisting lesions such as esophageal (mucosal) ring, peptic or malignant esophageal stricture, or eosinophilic esophagitis. The classical symptoms during FB aspiration are a sudden onset of paroxysms of cough, stridor and dyspnoea and occasionally this history is unavailable. The commoner signs are respiratory difficulty, reduced air entry in an affected lung, wheezing and/or crepitations. Therefore, a high index of suspicion is usually required to make a diagnosis. (1)*

*While morbidity in FBA 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. (2)*

*Information about FBA and its attendant danger community seems to be abysmally low. If we consider the study done in community; A large urban industrial city like Ludhiana (India) only 23.8% have some information about FBAs. Their study found that uneducated caregivers had a 7.5 times higher chance of having no knowledge of this entity than educated ones ( $\chi^2=7.51$ ). At the same time almost half the parents interviewed thought that FBA is not a life-threatening situation. (3)*

*A total of 555 of the women reported that a child had suffered an injury at home in the previous 4 weeks, a rate of home-related injuries of 38.3%. Foreign body aspiration (7.6%); the most*

*common forms of injury among children below 3 years old were two-thirds (66.7%) of injured children aged 3 – 6 years suffered foreign body aspiration. Also the study revealed that 26.6% of the studied mothers had not heard of the term of “first aid” (11)*

*Even though the exact incidence is not known, most of the pediatrics and adults exposure to the foreign body aspiration was died at home before reached to the health services due to lack of the community awareness toward proper management of airway.(12)*

*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. Foreign bodies 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.(13)*

### **1.3) SIGNIFICANCES OF THE STUDY**

*The study was adding knowledge on understanding of the community attitude toward the burden of foreign body aspiration. In addition the study was providing base line information on community awareness toward the foreign body aspiration. The data obtained in this study, may be used by concerned bodies for planning and evaluating the community awareness and take the measurement to solve the problems. The recommendations given if considered are going to benefit the public at large on prevention and management of foreign body aspiration*

## CHAPTER TWO

### LITERATURE REVIEW

#### Global Estimation

*Journal of Indian Association of Pediatric Surgeons community based cross-sectional study indicates, FBA remains a huge problem and a major cause of accidental death in children around the world. The age group, 1–5 years, is most vulnerable for FBA and delays in diagnosis occur seven times more commonly in aspirations than in ingestions. Delay in diagnosis can lead to serious pulmonary damage and increased risk of long-term complications. (2)*

*Breathlessness, excessive coughing, and vomiting were considered the main symptoms of FBA by their study population, similar to the “Penetration Syndrome” described by Koul et al Similarly in a study by Kirtane et al., the common symptomatology spectrum reported is similar to what was suggested by caregivers who were included in their study. It, therefore, appears that parents who do know about FBA have a fair idea about the symptomatology that comes along with it. Unfortunately, only half of the parents they interviewed were confident that they would be able to recognize an episode of FBA which probably would cause delay in diagnosis. According to their study, caregivers who have had some kind of education are five times more likely to recognize a FBA than uneducated caregivers ( $\chi^2=5.52$ ). (2, 3)*

*While morbidity in FBA has been associated with diagnostic delay, it has also been associated with delay in getting expert medical help. Half of the primary caregivers (51%) in their study said that they would try to remove the foreign body themselves, probably leading to a possible delay in instituting correct management. Information about FBA and its attendant danger in their community seems to be abysmally low. If they consider their study population as a sample of the community in a large urban industrial city like Ludhiana, then only 23.8% have some information about FBAs. Their study found that uneducated caregivers had a 7.5 times higher chance of having no knowledge of this entity than educated ones ( $\chi^2=7.51$ ). At the same time almost half the parents interviewed thought that FBA is not a life-threatening situation. Keeping small objects out of the reach of children and education of older children appears to be the most popular way of preventing FBA. Results in their study reflect an ambivalent attitude toward this*

life-threatening condition with 61.3% of the caregivers in the high-risk group (1–5 years) having taken no measures in their homes to prevent FBA. Sixty-three primary caregivers formed part of this study with 49.2% (n=31) having children in the age group of 1–5 years. Parents with children less than 1 year formed the next largest group (n=19) and 84.1% (n=53) of the primary caregivers were housewives. 15.9% (n=10) of the study population was uneducated and 42.9% (n=27) of the primary caregivers had education at least up to class 10. Also, 74.6% (n=47) of the parents interviewed knew that their children could aspirate foreign bodies. Sixty percentage of the uneducated caregivers said it was not possible for children to aspirate foreign bodies. There was a statistically significant difference in the knowledge of the possibility of FBA between educated and uneducated caregivers (Fishers's exact  $P < 0.012$ , relative risk = 0.49). (3)

List the perceived symptomatology of FBA among the caregivers. Forty-six of the study population (n=29) said that they will not be able to recognize a FBA. Eighty percent (80%) of the uneducated parents did not know the symptomatology of FBA. Educated parents were found to be more likely to recognize a FBA when it occurred compared to uneducated caregivers and this difference was statistically significant (Fishers exact  $P$  value = 0.02, relative risk= 0.33). Forty-six percent (46%) of the caregivers interviewed feel that FBA is not a life-threatening event. Sixty percentages of the primary caregivers have not taken any measures to prevent FBA in their wards. (3, 4)

Indian journal of community medicine assess the parents how they would treat the child if a FBA did occur, 50.8% (n=32) of the parents said that they would like to remove the foreign body on their own. Forty-six percent (n=29) would take the child to a general physician while 3.2% of the parents interviewed were not sure what to do if their child aspirates. Forty-nine percentage of the educated and 60% of the uneducated parents said they would remove the foreign body themselves. Education status, therefore, does not seem to significantly affect the mode of treatment ( $P=0.35$ ). Seventy-six percent (n=48) of the parents interviewed had not heard about the dangers of FBA. Among those who had heard, only three had sourced their information from medical professionals. None of the uneducated parents had heard about the dangers of FBA. (4)

Today's children are the citizens of tomorrow. They deserve to inherit a safer, fairer and healthier world. There is no task more important than safe guarding their environment. In

*today's world, in developed as well as developing countries, danger prevails not only on the roads but it also exists in the home and playgrounds. Every year thousands of children die or permanently disabled as a result of home injuries like foreign body aspiration. (5)*

*About three-quarters (74.5%) of mothers had incomplete knowledge regarding home accident among their children. (6)*

*The researcher identified that the parents had inadequate knowledge about home environment in terms of accidents were found to be unsafe. (7)*

*First aid knowledge score of working women was higher than unemployed ones. Attitude and behavior scores of the study population were increasing with increasing levels of education and economic status and were decreasing with increasing age. (8)*

*Ibrahim conducted study and he stated that forty percent of deaths due to home accidents are preventable if preventive measures are taken to avoid accidents, if the mother knows these preventive measures and magnitude of accidents. Ignorance and negligence of the mother are the fundamental causes of accidents. So it is important to improve the parent's knowledge, attitude and practice to prevent accidents at home. Ibrahim also, reported that parents in all communities needed a wide range of educational counseling about how to prevent accidents that injure children at home. (9)*

*The Eastern Mediterranean study revealed that 26.6% of the studied mothers had not heard of the term of "first aid" Of those who had a previous knowledge about first aid, 56.1% reported that television (TV) and/or radio were the source of their knowledge, 13.8% of them gained their knowledge from attending training courses, 12.0% from doctors or nurses, 12.0% from reading textbooks, 4.1% from the educational curriculum and 2% from friends and relatives. All studied mothers agreed that mothers of school-age children should know about first aid and that they were all willing to undergo such training. The mean number of KAP questions answered correctly by the studied mothers was 11.0 (SD 5.3) out of 29, range 4–24. Mothers aged < 25 years had the highest mean KAP score [12.3 (SD 5.1)] and those aged  $\geq$  45 years the lowest [9.3 (SD 2.9)]. Postgraduate educated mothers had the highest mean scores [20.5 (SD 2.3)]. Working mothers scored higher than housewives; those working as health-related personnel scored*

*highest [19.9 (SD 0.2)] and those working in other jobs scored 11.9 (SD 3.9) whereas housewives had a mean score of only 9.5 (SD 4.4). Mothers of high socioeconomic status scored better [14.6 (SD 5.0)] than those of middle and low socioeconomic status [10.9 (SD 4.6) and 6.8 (SD 2.8) respectively]. Those who had previous knowledge about first aid had a higher score [12.6 (SD 5.1)] than those who did not [6.5 (SD 2.3)]. Mothers who had attended training course(s) on first aid had the highest score [19.8 (SD 2.9)], followed by those whose source of knowledge was the educational curriculum [19.4 (SD 1.6)] then textbooks [17.2 (SD 3.1)]. (11)*

## **CHAPTER THREE**

### **OBJECTIVES**

#### **3.1 General Objectives**

- ❖ *To assess the knowledge, attitude and practice towards the first aid management of foreign body aspiration and obstruction among the community living in Addis Alem Town of Ejere Wereda in West Shewa Zone 2014/2015*

#### **3.2 Specific Objectives**

- ✚ *To assess the awareness of the community about FBA.*
- ✚ *To assess the practice of the community toward the management of FBAO*
- ✚ *To assess attitude of the community about FBA*
- ✚ *To assess the practice of the community toward the prevention of FBA*

## **CHAPTER FOUR**

### ***Methods and Materials***

#### ***4.1) Study Area and Periods***

*The study was conducted in Addis Alem Town of Ejere Wereda West Showa Zone, Oromia Region starting from January 01/01/2015 up to 30/01/30 as Gregorian calendar. Addis Alem is one of the Towns of the West Showa Zone found at 42km from Addis Ababa the capital city of Ethiopia in the west part of the country. Based on the data found at 2004 as Ethiopian calendar census the town has three(3) kebeles with 4017 house holders(not including the rented house) and total population of 23594.*

*In this town there are three Kebeles namely, Zero One Kebele(1620 householders), Zero Two Kebele(1001 householders) and Zero Three Kebele(1396 householders). Addis Alem Town plays a pivotal role in Ejere Wereda West Showa Zone by providing good public service like: health service, marketing systems, management system, water supply, transportation that the main road direct from the Addis Ababa the capital city of Ethiopia to the western part of Ethiopia cross this town, as well as this town has good environmental condition with stabilized populations. (14)*

#### ***4.2 Study Design***

*Community based descriptive cross-sectional study was done from January 01 to 30/2015.*

#### ***4.3 Population***

##### ***4.3.1 Source population***

*All community lives in Ejere Wereda of West Shewa Zone.*

##### ***4.3.2 Study Population***

*All community lives in Addis Alem Town of Ejere Wereda that fulfill the inclusion criteria.*

## 4.4 Inclusion and Exclusion Criteria

### 4.4.1 Inclusion Criteria

- ❖ *Householders that have their own house number that assured by the administrative of the town.*
- ❖ *One person from each house holder(husband or wife), if not possible any family member age 18 – 50 years*
- ❖ *Age 18 – 50 years.*

### 4.4.2 Exclusion Criteria

- ❖ *Uninterested house holders to participate on intervention*
- ❖ *Mentally ill house holders.*
- ❖ *House holders that leave town, without substitution.*

## 4.5 sample size and sampling procedure

### 4.5.1 Sample Size Determination

- *Sample size is determined using single population proportion formula by considering the 50% proportion, 90% confidence level and 0.05 margin of error*
- $$n = \left( Z_{\frac{\alpha}{2}} \right)^2 \frac{p(1-p)}{d^2} = \frac{2.70603 * 0.50 * (0.50)}{0.0025} = 271$$

**Where:**

- ✓ *n - Is the minimum possible size.*
- ✓  *$Z_{\frac{\alpha}{2}}$  - Standard score value for 90% confidence level of two side normal distribution ( $z = 1.645$  for 90% confidence level)*
- ✓ *p - Best estimation of population proportion.*

*Since the number of the population (house holder) < 10000 finite population corrections used as follow:*

$$nf = \frac{n}{1 + \frac{(n)}{N}} = \frac{271}{1 + \frac{(271)}{4017}} = 254 \text{ And considering 20\% non-response rate } 254 * 20\% =$$

51

$$nf = 254 + 51 = 305$$

**Finally= 305** house holders were participated or included in the study.

#### **4.5.2 Sampling Technique and Procedure**

First complete list of 4017 house holders from the three village of the town is obtained. For each village the total sample size (305) proportionally allocated.

Therefore 123 house holders among 1620 from 01kebele, 76 house holders among 1001 from 02 kebele, and 106 house holders among 1396 from 03 kebele. The final study participants were selected through simple random sampling technique using RAND function from sampling frame.

#### **4.6 Study Variables**

##### **4.6.1 Dependent Variables**

- ♣ *Attitude*
- ♣ *Sign and symptoms of foreign body aspiration(knowledge)*
- ♣ *First aid (practice).*
- ♣ *Management.*

##### **4.6.2 Independent Variable**

- ♣ *Foreign body aspirated (type, size and location)*
- ♣ *Socio demographic variable*
- ♣ *Situation of the victim during FBAO*

## **4.7 Data Collection Procedures and Quality Control**

### **4.7.1 Data Collection Instrument**

*The questionnaire for this study consist of socio-demographic characteristic, educational level, previous exposure, symptomatology of FBA, recognition of foreign body aspirated and obstructed victims, attitude of the community toward FBA, the way they handle, dangers of FBA, measurement taken to prevent, pediatrics/adult FBA. Five percent (5%) of the questionnaires were pre-tested to assess clarity, sequence, consistency, understandability and for total time it takes before the actual data collection.*

*The necessary comments and feed backs were incorporated in the final instrument.*

### **4.7.2 Data Collection Personnel**

*A total of two(2) facilitator and five (5) community health workers two(2) for 01kebele,one(1) for 02kebele, two(2) for 03kebele. They were trained and oriented for one day on the questionnaire and how to orient the respondent.*

### **4.7.3 Data Quality Control**

*The questionnaires were translated to the local language. The collected data was reviewed and checked for completeness, missed and jumped questions by the supervisors and principal investigator. As much as possible the interview was forwarded to the respondents after the purpose of the study is explained. To assure anonymity, code numbers were placed on the completed questionnaires after they return to the investigators. Finally; necessary comments and feedback were incorporated for final instrumented.*

## **4.8 Operational Definition**

**Foreign body aspiration:** *the act of inhaling or breathing foreign bodies into the air system or airodigestive system.*

**Community:** *a group of people who live in the same area (such as city, town, or neighborhood) and an interacting population of various kinds of individuals in a common location with a common interest.*

**Wereda:** is human settlement that has a cumulative of villages but smaller than zone.

**Zone:** is the human settlement that has a cumulative of weredas but smaller than the region.

**Householders:** a person who owns or rents a house.

**Practice:** the customary or expected procedure way of doing something.

**Awareness:** having information about foreign body aspiration.

**First aid:** help given to a foreign body aspirated person until full medical treatment is available.

**Attitude:** a settled way of thinking or feeling, a position of the body indicating a particular mental state.

#### **4.9 Data Entry and Analysis Procedure**

The data obtained was edited manually, entered into the computer and analyzed using the Statistical Package for the Social Sciences (SPSS) version 16.00. Frequencies were generated and Bivariate logistic regression analysis were used to test associations between categorical variables

#### **4.10 Ethical Consideration**

Ethical clearance and approval letter to conduct study was obtained from Department Of Emergency Medicine (DEM) of Addis Ababa University (AAU), to communicate with Addis Alem Town Administrative body. Permission letter was obtained from administrative body of Addis Alem Town. Finally verbal consent was obtained from the respondents immediately before starting interview.

#### **4.11 Dissemination of the result**

The final report will be presented to Addis Ababa university Department of Emergency Medicine and disseminated to the department of Emergency Medicine (EM) and collage of Health Science of AAU, Ejere Wereda Health Bureau and to the concerning bodies as needed.

#### 4.12, ***CHALLENGE AND LIMITATION OF THE STUDY***

- The study was conducted in a short **period time** and the sample size is small comparing to other research conducted in the area
- Some of the participants are not cooperative and it takes a time to negotiate them, also most of the participants are afraid to give their opinion freely.
- The amount of money funded to conduct the study is not enough, as well as **not enough time** are given to analyze the result of the data collected.

## CHAPTER FIVE: RESULTS

### 4.1. Socio Demographic Profile

Of the total 1017 house holders of people living in Adis Alem town of Ejere Wereda West Shewa Zone 305(29.9%) peoples were participating in to the interview. Among these people 167(54.8%) were male, 138(42.2%) were female and the rest of socio demographic data in the table 1, bellow.

**Table.1** Table showing the frequency and percentage of socio demographic characteristics of people living in Adis Alem town of Ejere Wereda West Shewa Zone who participating to the interview, April 2013. (n = 305)

Variable		Number	Percent (%)
Sex	Male	167	54.8
	Female	138	42.2
Age	18 – 30	176	57.7
	31 - 40	92	30.2
	41 -50	37	12.1
Religion	Orthodox	204	66.9
	Muslim	21	6.9
	Protestant	76	24.9
	Catholic	3	1.0
	Others	1	0.3
Marital Status	Married	194	63.6
	Single	109	35.7
	Divorced	2	0.7
	Widowed	0	0.0
Ethnicity	Oromo	215	70.5
	Amhara	69	22.6
	Guragea	18	5.9
	Tigrea	3	1.0
	Others	0	0.0
Level of Education	Illiterate	24	7.9
	Grade 1 – 8	66	21.6
	Grade 9–12 + diploma	154	50.5
	Undergraduate and above	61	20
Occupation	Government employee	123	40.3
	Private	182	59.7

Of the participants 100% heard about FBs and choking, 8.5% had exposure to Foreign Body Aspirated and Obstructed victims and 46.6% had information about First Aid of FBs and choking as seen in figure 1, below.

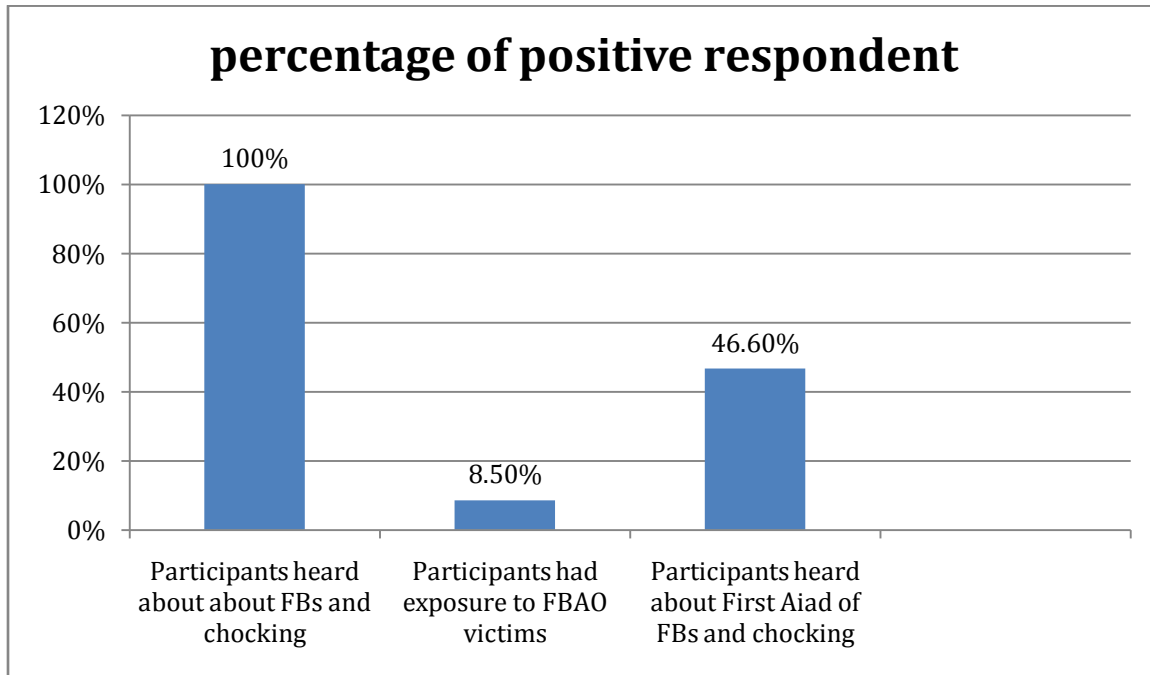


Figure1, Shows the positive respondents of the community about Foreign Body aspiration and choking

As seen from figure above the majority of the participants had no exposure to the victim affected by the foreign body aspirated and obstructed. Again majority of the respondents have no information about the First Aid of FBs and choking.

Generally there was significant difference between the respondents who had exposure (8.5%) and the respondents had no exposures (91.5%) as seen from figure1, above.

The second question forwarded for the participants were focused on assessment of the respondent awareness and knowledge toward the foreign body aspiration and choking with six series multiple choice questions as seen from figure 2, bellow.

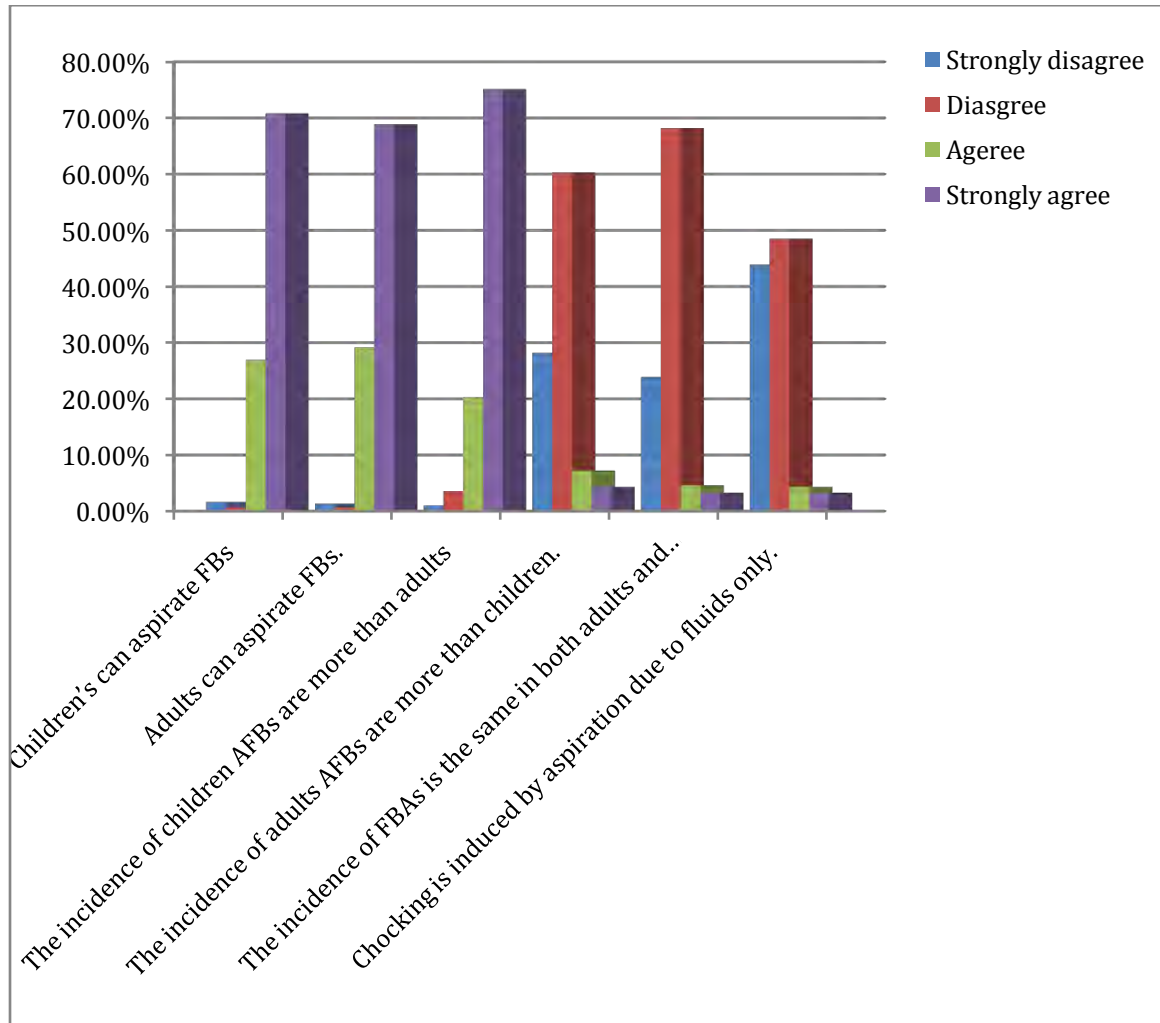


Figure2, Shows community awareness and knowledge about FBs and choking

How much does our community know foreign body aspiration? Research question number two had brought correct answers based the survey done on 305 respondents' responses to this question. Accordingly, among 305 respondents 51.8% and 42.2% of respondents were answered correctly by saying strongly agree and agree respectively. Again, the survey done noted that 2.5% and 3.5% of participants had wrong response to this question by saying disagree and strongly disagree respectively.

In the third part of the survey participants were asked a series of five questions, in order to assess the participant attitude about the foreign body aspiration and choking as seen from the figure 3, bellow.

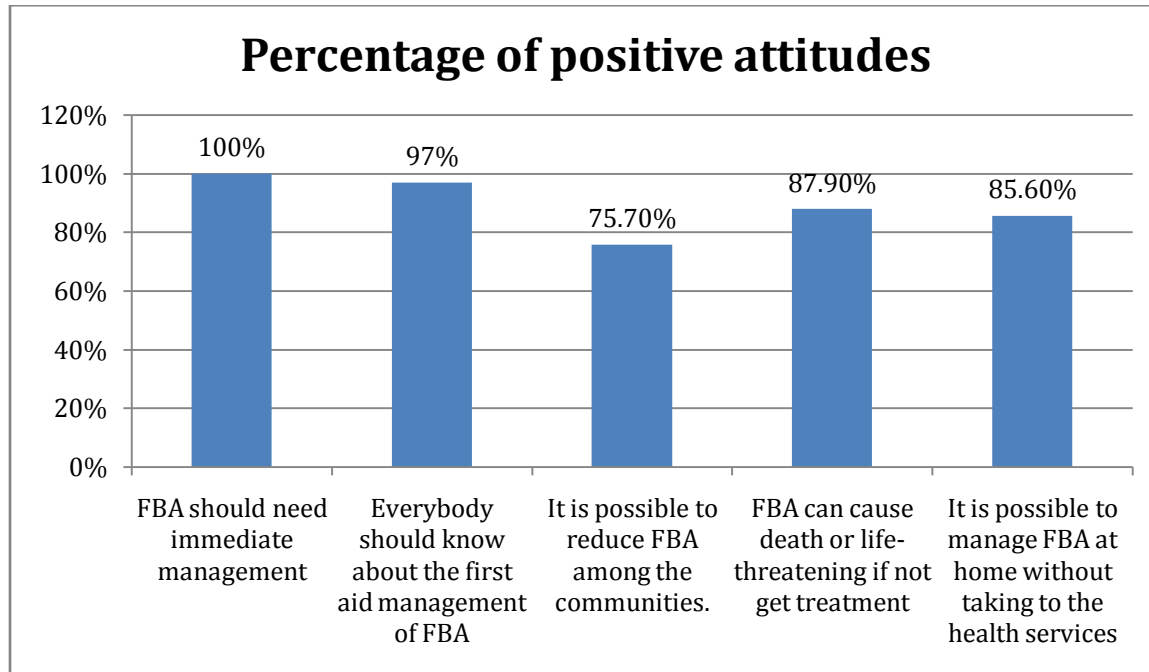


Figure3, Shows the attitudes of the participants toward the Foreign Body Aspiration and choking

There were high statistical significant difference between respondents had positive attitudes and negative attitudes; generally from the total of the respondents participating to the survey, 89.2% of participant had positive attitude and 10.8% had negative attitudes as seen from the survey done.

The third question of this cross sectional study examined the participants attitudes related to foreign body aspiration, obstruction and choking, accordingly almost all of the participants had good attitudes toward the foreign body aspiration, obstruction and choking and few of them had negative attitudes about it; among the respondents 91.5% and 8.5% had positive attitudes and negative attitudes respectively.

In the fourth part of the survey, question looked at the general universal indication of choking with question: What types of signs and symptoms you observe from a person facing with foreign body aspiration and obstruction? With five multiple choice questions as seen from the figure 4, bellow.

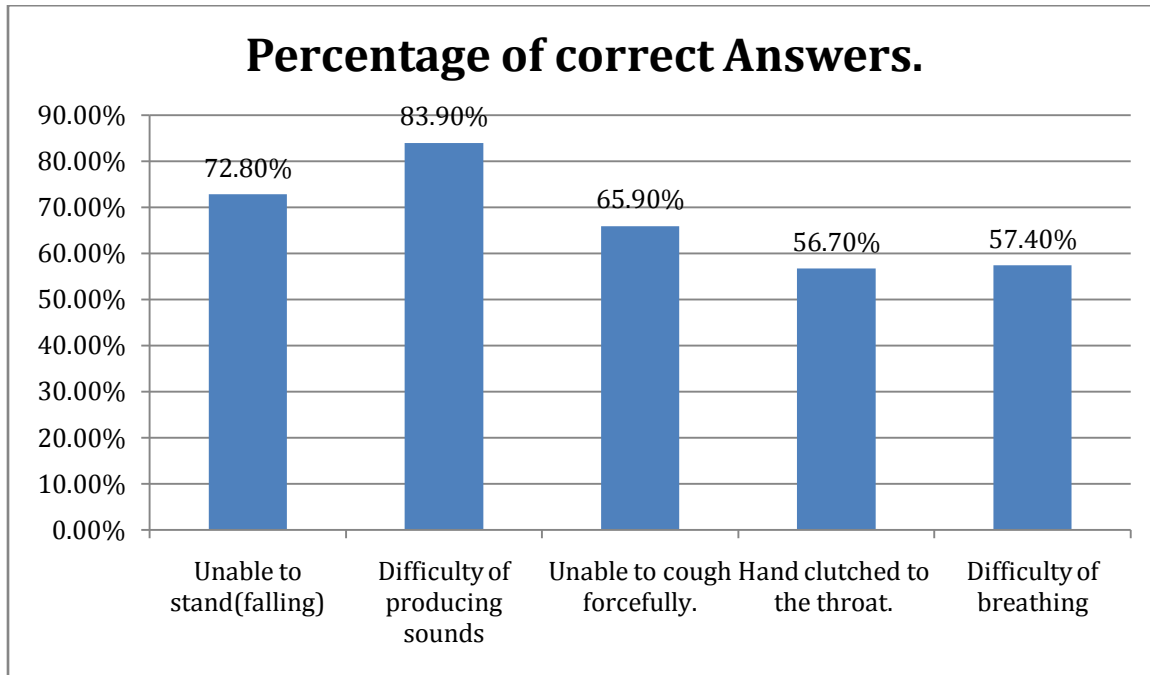


Figure4, Shows the respondents answer to the universal signs of choking

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, 68.6% respondent from each group of 18 to 30 yrs old, 63% from each groups of age 31to 40yrs old and 71.4% from each groups of 41 to 50yrs old were correct respondent respectively. Again, 77.5% respondent from each illiterate of group, 67% from each groups of grade 1 to 8, 65.3% from each groups of grade 1 to 9 + diploma, 68.9% from each group of undergraduate and above,65.2% from group of government employee and 68.8% were correct respondent respectively from each groups.

The fifth question looked; what do you do if you face a sudden obstructed of child ( $\leq 1$  yrs) with meal during feeding and become difficulty of breathing or absence of breathing and unable to speaking or complete obstruction (the foreign body is not visible) with five multiple choice as seen in figure 5, bellow.

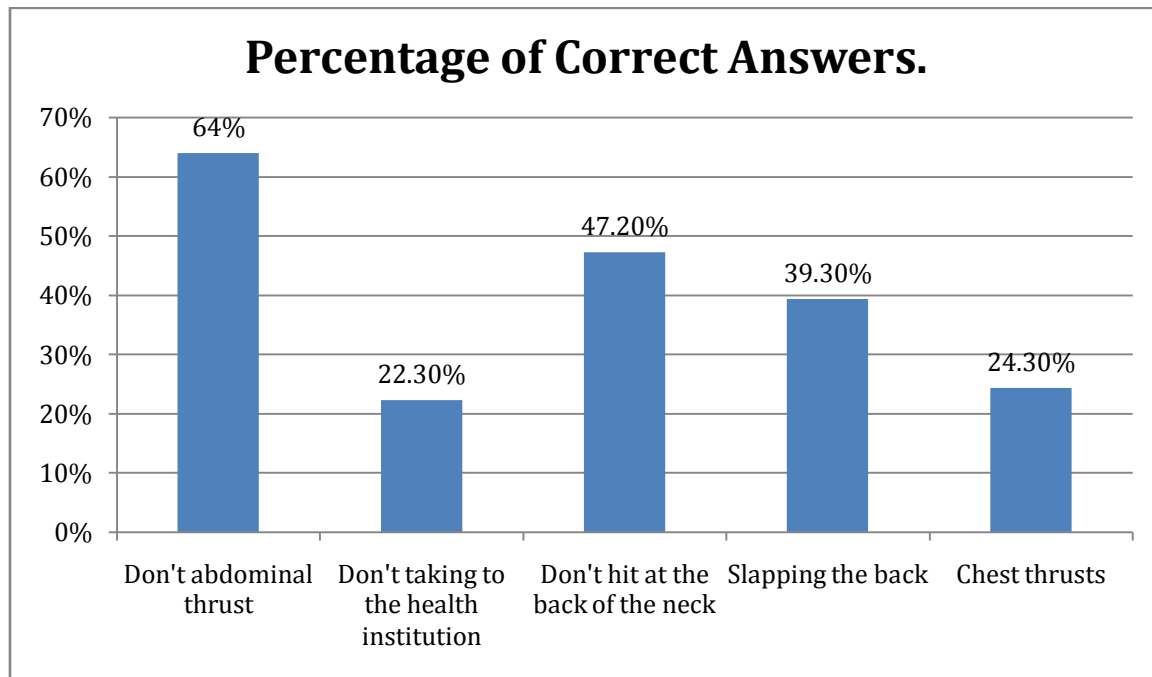


Figure5, Shows the correct respondents percentage related First Aid of obstructed and choaked Infants

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, 37.7% respondent from each group of 18 to 30 yrs old, 41.5% from each groups of age 31 to 40yrs old and 43.8% from each groups of 4 to 50yrs old were correct respondent respectively. Again, 37.5% respondent from each illiterate of group, 35.6% from each groups of grade 1-8, 40.9% from each groups of grade 1 to 9 + diploma, 41.3% from each group of undergraduate and above, 41.5%from each group of government employee and 38.4% from private group were correct respondent respectively among their groups.

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, the age groups of 41 to 50yrs, age group of 31 to 40yrs plus government employee and group of undergraduate and above scored high score correct respondents of 43.8%, 41.5% and 41.3% respectively from each of their groups.

The sixth question looked like; what do you do if you face a sudden obstructed of child ( $\leq 1$  yrs) with meal during feeding and become difficulty of breathing or unable to breath and speaking, producing sounds or complete obstruction (the foreign body is visible and accessible) with five multiple chose response as seen from figure6, bellow.

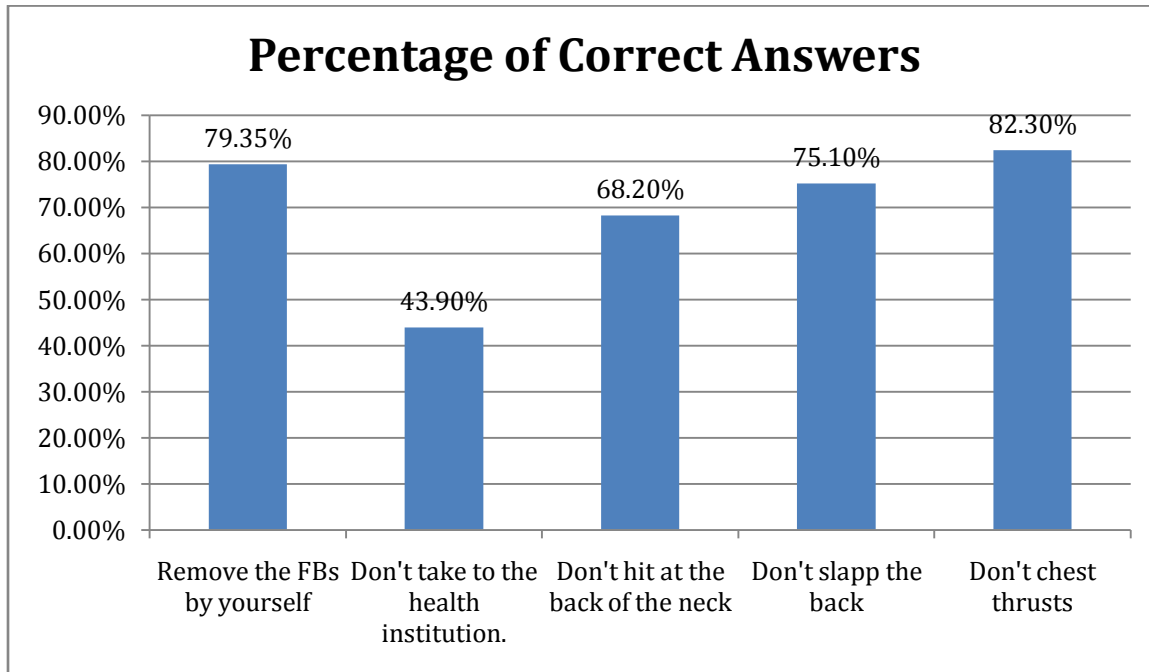


Figure6, Shows the correct respondent percentage related to First Aid of Infant faced with FBAO

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, 70.7% respondent from each group of 18 to 30 yrs old, 65.2% from each groups of age 31 to 40yrs old and 76.8% from each groups of 41 to 50yrs old were correct respondent respectively. Again, 77.5% respondent from each illiterate of group, 71.5% from each groups of grade 1 to 8, 69.1% from each groups of grade 9 to 12 + diploma, 66.5% from each group of undergraduate and above, 67.1% from each group of government employee and 71.2% from private group were correct respondent respectively among their groups.

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, the groups of illiterate, age group of 41 to 50yrs and group of grade 1 to 8 had scored high score correct respondents of 77.5%, 76.8% and 71.5% respectively from each of their groups.

Question number seven forwarded to the respondents as following; what do you do if you face a sudden obstruction of adult with meal during feeding and become obstructed and difficulty of breathing or unable to breath and talking, producing sound or complete obstruction (the foreign body is not visible), with four multiple chose as seen from figure 7, bellow.

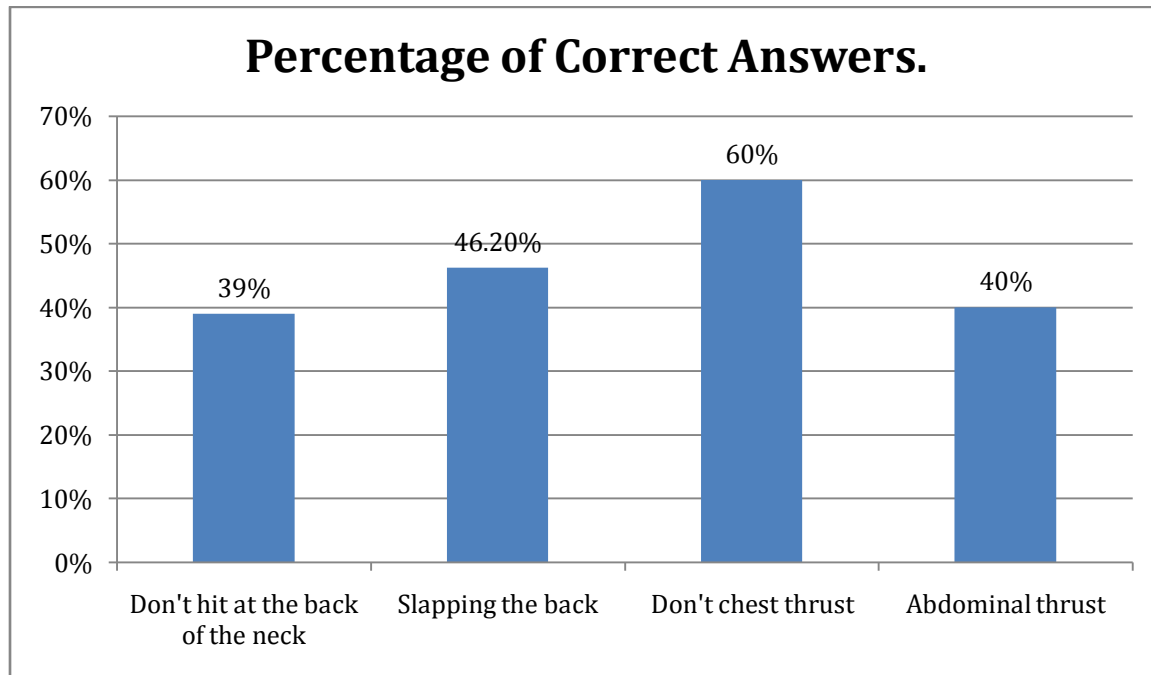


Figure7, Shows the correct respondents percentage related First Aid of obstructed and choaked adults

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, 45.5% respondents from each group of 18 to 30 yrs old, 47.8% of respondents from each groups of age 31 to 40yrs old and 47.3% of respondents from each groups of 41 to 50yrs old were correct respondents respectively. Again, 39.5% respondents from each illiterate group, 44.7% of respondents from each groups of grade 1 to 8, 48.2% of respondents from each groups of grade 9 to 12 + diploma, 46.3% of respondents from each group of undergraduate and above, 46.1% of respondents from each group of government employee and 46.6% of respondents from private group were correct respondent respectively among their groups.

All of the responses were cross checked in comparison with each of age groups, level of education and occupation of the respondents to identify any significant difference among groups. Accordingly, the groups of grade 9 to 12+deploma, age group of 31 to 40 and age group of 41 to 50 scored high score correct respondents of 48.2%, 47.8% and 47.3% respectively from each of their groups.

Question number eight:

What do you do if you face a sudden obstruction of adult with meal during feeding and become obstructed and difficulty of breathing, talking, producing sounds or complete obstruction (the foreign body is visible and accessible) with five multiple chose as seen from figure 8, bellow.

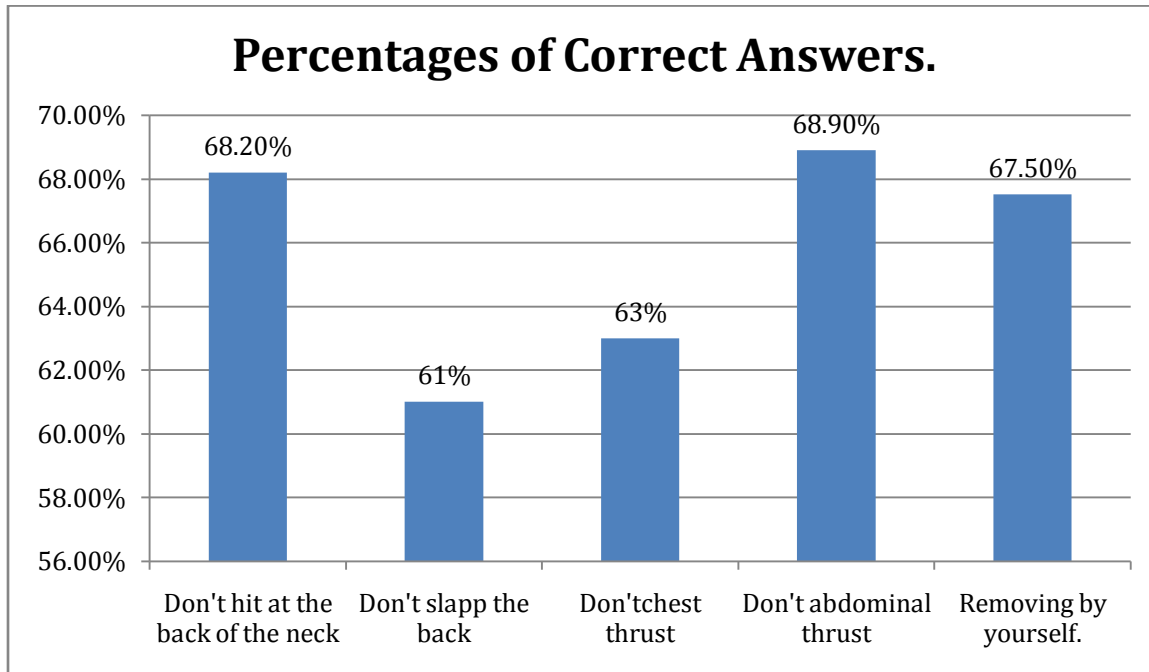


Figure8, Shows the correct respondent percentage related to First Aid of Infant faced with FBAO

When the respondents of the question number seven were cross tabulated with each of sex groups, the results of the cross tabulation had no high significant statistical difference and the reported result looked; 53.8% correct respondent from the female sides and 52.1% correct respondent from males as assured from the survey done.

When the respondents of the question number eight were cross tabulated with each of sex groups, the results of the cross tabulation had no high significant statistical difference and the reported result looked; 53.8% correct respondent from the female sides and 52.1% correct respondent from males sides as assured from the survey done.

The question number nine was focused on foreign body aspiration with partial obstruction and this question was presented for the respondents; what do you do if you face a child aspirating foreign bodies and fall into excessive coughing staying more than day (the foreign body was not visible)? With three multiple chose as seen from the figure 9, bellow.

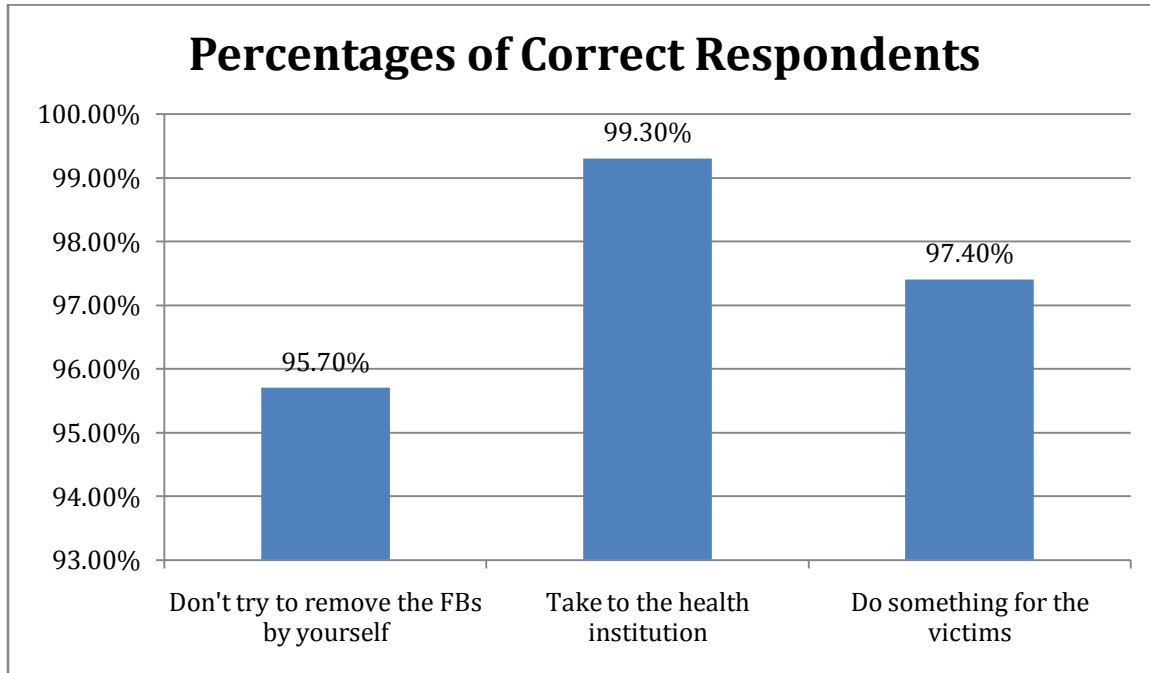


Figure9, Shows the percentage correct answered participants toward the management of partial obstruction of FBA and choking.

When the respondents of the question number nine were cross tabulated with each of sex groups, the results of the cross tabulation had no high significant statistical difference and the reported result looked; 96.4% correct respondent from the female sides and 98.4% correct respondent from males sides as assured from the survey done.

In order to assess the respondent knowledge, ability of thinking for future problems, and the skill of decision making on the partial obstruction of foreign body looked simple but the progress obstruction can cause life threatening to the victims; so, the research question number nine focused on the partial obstruction of foreign body aspiration and choking.

When the respondents of the question number nine were cross tabulated with each of sex groups, the results of the cross tabulation had no high significant statistical difference and the reported result looked; 96.4% correct respondent from the female sides and 98.4% correct respondent from males as assured from the survey done.

Question number ten to looked at the general safety prevention knowledge of the participants. The participants were asked a series of four basic safety prevention questions in a multiple choice format; how can prevent foreign body aspirations. With four multiple choice formats as seen from figure 10, bellow.

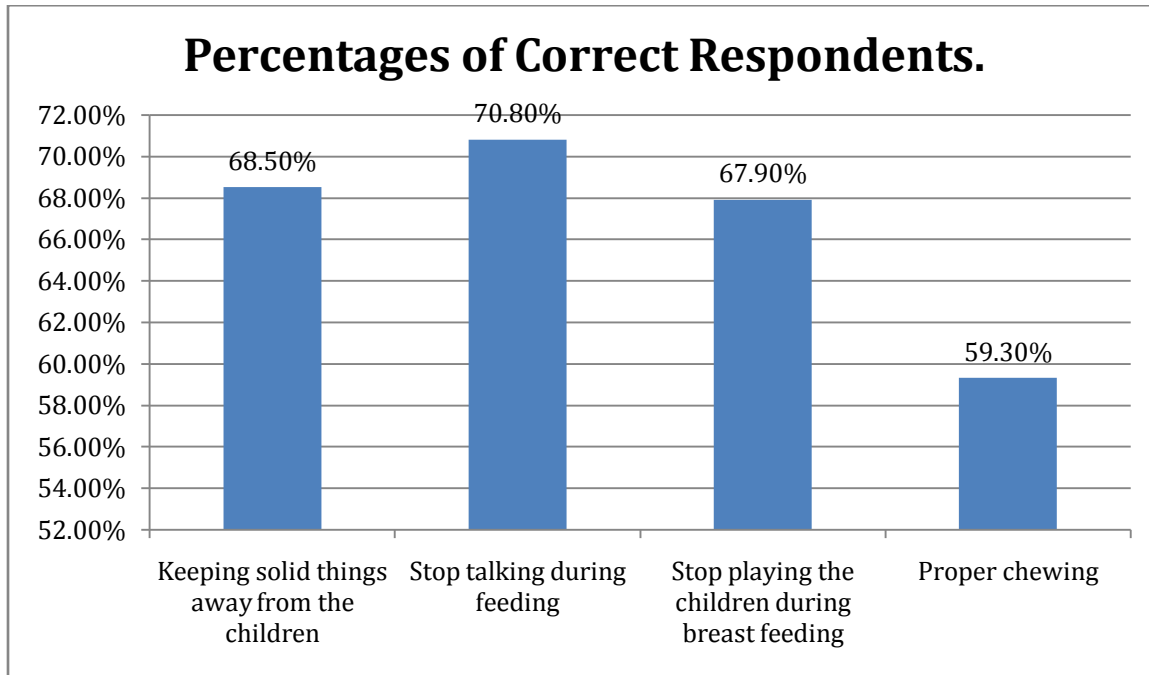


Figure 10, Shows percentage of correct answered participants how to reduce the risk of FBA and choking.

Cross tabulation of comparing statistical difference between the groups of marital status of the respondents toward the prevention or reduce the burdens of foreign body aspiration and obstruction among the community have done and seen from the survey done 90% of the respondent answered correct answers among each group of married one. Again 84.8% and 62.5% correct answers were answered by the group of single and divorce from their each group respectively.

The overall knowledge level of the group that responded to this survey could be categorized as overall good.

Cross tabulation of comparing statistical difference between the groups of marital status of the respondents toward the prevention or reduce the burdens of foreign body aspiration and obstruction among the community have done and seen from the survey done 90% of the respondent answered correct answers among each group of married. Again 84.8% and 62.5% of respondents were answered correct answers by the group of single and divorce from their each group respectively.

## ***Discussions/Implication***

The purpose of this research project was to examine the community preparedness, knowledge, attitudes, First Aid, prevention and practice toward the management of foreign body aspiration, choking and obstruction among the communities. Several insights were gained from this cross sectional study. It is hoped that the information gleaned from this study will assist the concerning bodies who are responsible and beneficial.

The study was conducted using pilot test and home to home interview conducted for three weeks.

The first research question explored the information of First Aid and exposure of participants lives in Addis Alem Town of Ejere Wereda, West Shewa Zone of Oromia region concerning to Foreign Body Aspiration and Obstruction victims. Over all the exposure of the respondents to the FBAO victim were very low; that were 8.5% of respondents had exposure to the peoples faced with FBAO, but some of the participants were heard about first aid given for the people faced FBAO; that were 46.5% of respondents had information about first aid and all of respondents were agree with FBAO had chance to occur among the communities.

The research done in India shows there was a statistically significant in the knowledge of the possibility of FBA between educated and uneducated caregivers but in this survey there were no difference, all of the participant agree with possibility of FBA (3). Again 76%, and 26.6% of the parents interviewed had not heard about the dangers and first aid of FBA in Indian journals and Eastern Mediterranean respectively but in this journal 53.5% respondents had not heard. (4,11)

According to the study done in Indian journal of community medicine 80% of the uneducated parents did not know the symptomatology of FBAO, but in this research only 22.5% of uneducated respondent did not know the symptomatology of FBAO.(3,4). Again only 50% of respondents recognize the episodes of FBA but 68.5% of the respondents were recognizing in this survey (2,3), but this research was conducted on the people lives in the towns, the Indian was conducted on rural peoples.

### Summary of discussions

This study suggests that while a fair amount of knowledge concerning emergency response or first aid held by the community toward FBAO need improvement. The knowledge of awareness, attitude, prevention and differentiating episodes of FBAO victims seemed to be very good. But the knowledge of modern practice of first aid given from the community to victim faced FBAO was very bad. Unfortunately greater than half respondents took action that exposes the victims for other problems.

As seen from the survey done more of the respondents believed to **hitting at the back neck** of the victim obstructed by FBA as the first management (first aid) of Foreign Body Aspirated and Obstructed person.

Know see some of the evidences from some groups as summary in the following tables.

Categories of the respondent	Respondents believed to hitting at the back neck of victims faced FBAO (%)
Male	50.74
Female	52.72
18 to 30yrs old	54.12
31 to 40yrs old	50
41 to 50yrs old	43.9
Illiterate	56.35
Grade 1 to 8	60.6
Grade 9 to 12 + deploma	48.4
Under graduate and above	47.5
Government employee	47.4
Private worker	55.14

First aid knowledge score of working women was higher than unemployed ones. Attitude and behavior scores of the study population were increasing with increasing levels of education and were decreasing with increasing age. In this study knowledge related to government employee and level of education was the same as the research done in the Indian journal of medicine except as the age increase the KAP of the respondents also increase (8)

As survey done indicated eighty two percent (82%) of the respondents traditionally believed to give fluid especially water for the victim obstructed by the foreign body aspiration as the first aid management.

## ***RECOMMENDATIONS***

Several recommendations are made from this study in this section; while this study was successful in answering the research questions, upon reflection, the researcher would recommend a couple of points for consideration to those that may try to reproduce this study.

### ***Recommendation for Adis Alem Town Health Bureau***

The research found the general knowledge, awareness and attitude of the community living in Adis Alem town of Ejere Wereda West Shewa Zone to overall good in the area of FBAO. The general prevention knowledge was found to be very good and fair for prevention that they have taken for their safety.

The research also found the general action taken by the participants was overall very poor for the people faced FBAO.

The result of this study indicates weaknesses in general action taken by the participants or First Aid given from the community to the people faced FBAO. It may be advisable for the leadership of Adis Alem Town Health bureau to implementing some basic First Aid knowledge given to the people faced FBAO in to the curriculum given to community based health education.

### ***Recommendation for Addis Ababa University, Department of Emergency Medicine***

Research is an important part of any profession's growth. The literature review for this study found little with regard to studies conduct to examine the current prevention knowledge or action taken by the general population. This is especially true when looking at a communitywide risk from a multiple factors that can cause FBAO. It is strongly recommended that further studies be done in this field.

### ***Recommendation for Oromia Health Bureau and Ethiopian Ministry of Health***

It would be worthwhile for other areas of the community to carry out similar study to this one. Further studies would tell more about the reliability of this study. Other similar studies would help researchers understand the unintentional problems to the community. It is better if across the nation to incorporate some guidelines that could be used to efficiently cut down on prevention and First Aid given from the community to the people faced FBAO across the country.

### ***Conclusion***

In general people faced FBAO are not reach to the health facilities in order to get treatment. So, increasing the community knowledge, attitude and awareness toward the FBAO is one and the only solution to solve the problems at all. Through further researches providing information for concerning bodies and giving sustainable information to the communities.

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## ANNEXE I: Questionnaire

### Addis Ababa University College of Health science and Department Of Emergency Medicine

Questionnaires for the study of Assessment of KAP towards the first aid management of FBA among community living in Addis Alem Town of Ejere Wereda West Shewa Zone, 2014/2015. **The questionnaire has four parts.**

#### Part I: Socio-Demographic information for community.

**Instruction:** Please tick (✓) the number in front of the option you choose & fill in the blank space that best describe you on the right side of the table.

S. No	Questions	Coding categories
1.	Your gender	1. Male 2. Female
2.	Your Age in years	_____
3.	Marital status	1. Married 2. Single 3. Divorced 4. Widowed
4.	Ethnicity	1. Oromo 2. Amhara 3. Gurage 4. Tigrea 5. Other _____
5.	Religion	1. Orthodox 2. Muslim 3. Protestant 4. Catholic 5. Others _____
6.	Level of Education	1. Illiterate 2. Grade 1-8 3. Grade 9-12 + diploma 4. undergraduate & above
7.	Occupation	1. Government employed 2. private

**Part I (Question one and two) knowledge and awareness.**

**Questions about awareness and knowledge of foreign body aspiration**

The following questions are statements that represent possible feelings that individuals might have about FBA. Please indicate the degree of your agreement or disagreement with each statement by checking one of the four alternatives beside each statement from **0 to 3**

0= strongly disagree		2= agree			
1= disagree		3=strongly agree			
1	Have you heard about foreign body aspiration or choking? If the answer is No leave her/him	Yes		No	
2	Have you had any exposure to foreign body aspirated or choked person and obstructed?	Yes		No	
3	Heard about first aid related to FBA	Yes		No	
4	Children's can aspirate foreign bodies.	0	1	2	3
5	Adults can aspirate foreign bodies.				
6	The incidence of children aspirate foreign bodies are more than adults.	0	1	2	3
7	The incidence of adults aspirate foreign bodies are more than children.	0	1	2	3
8	The incidence of foreign bodies aspiration is the same in both adults and children's	0	1	2	3
9	Choking is induced by aspiration due to fluids only.	0	1	2	3



**Part III (Question 4 – 10)**

*Questionnaire about the practice, knowledge and prevention of the community toward the management of FBA*

*The following questions are statements that represent possible feelings that individuals might have about FBAO (the respondents can choose more than one answers for each questions)*

1) *What types of symptoms you observe from a person facing with foreign body aspiration and obstructed?*

- A) *Unable to stand (falling)*                      B) *difficulty of producing sounds*  
C) *Inability to cough forcefully.*              D) *Hands clutched to the throat*  
E) *Difficulty of breathing*                      F) *specify others* \_\_\_\_\_

2) *What do you do if you face a sudden obstructed of child ( $\leq 1$  yrs) with meal during feeding and become difficulty of breathing and speaking with complete obstruction (the foreign body is not visible)*

- A) *Abdominal trust.*                                      B) *Taking to the health institution*  
C) *Hitting at the back of the neck*              D) *slapping the back*  
E) *Chest trusts*    F) *specify others* \_\_\_\_\_

3) *What do you do if you face a sudden obstructed of child ( $\leq 1$  yrs) with meal during feeding and become difficulty of breathing and speaking with complete obstruction (the foreign body is visible and accessible)?*

- A) *Remove the FBs by yourself*                      B) *taking to the health institution*  
C) *Hitting at the back of the neck*              D) *slapping the back*  
E) *Chest thrusts*    F) *specify others* \_\_\_\_\_

4) *What do you do if you face a sudden obstruction of adult with meal during feeding and becomes difficulty of breathing and talking with complete obstruction (the foreign body is not visible)?*

- A) *Hitting at the back of the neck*              B) *slapping the back*  
C) *Chest thrust*    D) *abdominal thrust*  
E) *Specify others* \_\_\_\_\_

5) What do you do if you face a sudden obstruction of adult with meal during feeding and become difficulty of breathing and talking with complete obstruction (the foreign body is visible and accessible)?

- A) Hitting at the back of the neck      B) slapping the back  
C) Chest thrust      D) abdominal thrust  
E) Removing      F) specify others \_\_\_\_\_

6) What do you do if you face a child aspirating foreign bodies and fall into excessive coughing staying more than days?

- A) Remove the FBs by yourself      B) take to the health institution  
C) Not do anything      D) specify others \_\_\_\_\_

7) How can you prevent foreign body aspirations (for the respondents of the question No 3 in part III is agree only)

- A) Keeping solid things away from the children      B) stop talking during meal  
C) Stop playing the children during breast feeding.      D) Proper chewing.  
E) Specify others: \_\_\_\_\_

## ***ANNEXE II: The questionnaire translated to local languages (Oromic Language)***

### ***Odeeffannoo waa'ee qoranichaa hirmaatotaaf***

*Kabajamtoota hirmaatota!*

*Ani Abarraa Duulaan jedhama, barataa Imerjensii medisinii fi kiritikalkerii waggaa lammaffaa Universiitii Finfinneeti. Qorannoo kana kanin adeemsisuun barbaachiseef dhuma barnoota digirii lammaffaa irratti eebbifamuudhaf qorannoon (researchiin) ijaa barbaachisuufidha. Kanaaf qorannoon kun eeyyamtummaa Universiitii Finfinnee irratti kan hundaa 'edha. Kanaafuu yaanni isiin kennitan dhiimma qorannoo qofaf kan ooludha, akkasumas yaada keessan yeroo barbaadanitti adda kutuuf mirgi keessan kan eeggamedha.*

***Qorataan:*** ***Abarraa Duulaa***  
***Lakk bil:*** ***0920239674***  
***Imeelii:*** ***Dulaabera@yahoo.com***

***Galatoomaa!***

## ***Eeyyamummaa Hirmaatotaa***

*Qorannoon armaan olitti dhiyaate haalan ifa ijaa naafta'ee fi miidhaa tokkollee akka hinqabnee, akkasumaas yeroon barbaade akkan adda kutuu danda'u ijaan hubadheef dhiibbaa tokko malee fedhii kiyyaan irratti hirmaachuu kiyyaaf mallattoo kootin nan mirkanessa.*

*Mallattoo hirmaataa \_\_\_\_\_ Guyyaa \_\_\_\_\_*

## Addis Ababa Yuuniversiitii, Kollejjii Fayyaa Fi Dipaartimentii Imerjensii Medisiinii

Gaaffileewwan qorannonnoo dhimma namoota wantoota adda addaa liqimsuudhan hudhamaniif yookan dararamaniif gargaarsa duraa godhamuufi qabu, ilaalchisuun waa'ee beekumsaarrati, ilaalcha fi tarkaanfii (gochaa) Ummaanii Godina Shawaa Lixaa, Aanaa Ejeree Magaalaa Addis Alem fudhachaa jiru, ilaalchisee gaaffileewwan qophaa'an 2007. **Gaaffileen kun kutaa afur qabu.**

### Kutaa I: Gaaffilee bu'uuraa uummataaf.

**Hubachiisa: gaaffileewwan armaan gadiif deebii sirrii isiin ilaallatu filattanii akka deebifan kabajaan isiin gaafanna.**

T. lak	Gaaffiilee	Deebiiwwan filannoo
1	Saala	1. Dhiira 2. Dubara
2	Umurii	
3	Fuudhaf heeruma	1. Fuudhe/heerumte 2. Hinfuune/hinheerumne 3. Kan walhiikan 4. Kan jalaa du'e/duute
4	Sabummaa	1. Oromoo 2. Amharaa 3. Guragee 4. Tigree 5. Kan biroo _____
5	Amantaa	1. Ortodoksii 2. Musliima 3. Protestantii 4. Catoliikii 5. Kan biroo _____
6	Sadarkaa baruumsaa	1. Kan hin baranne 2. kutaa 1-8 3. kutaa 9-12 + Diploomaa 4. degree jalqabaaf isaa ol
7.	Hojii	1. hojii mootummaa 2. kan dhuunfaa

**Kutaa II: Beekumsaa Fi Hubannoo**

**Gaafileewwan beekumsaa fi hubannoo dhimma namoota wantoota adda addaa liqimsuudhan hudhamanii fi dararamanii ilaalchise. Gaafileewwan armaan gadii beekumsaa fi hubannoo keet irratti hundooftee akka deebiftu kabajaan sigaafadha.**

0= haalan walii hingalu		2= waliigala			
1= walii hingalu		3=haalan waliigala			
1	<i>Waa'ee namoota wantoota adda addaa liqimsuudhan hudhamanii fi dararamanii dhageessee beektaa? Yommuu deebin hindhageenye ta'e bira tarii.</i>	Eeyyee			Lakki
2	<i>Namni wantoota adda addaa liqimsuudhan hudhame ykn dararame si qunnaamee beekaa?</i>	Eeyyen			Lakki
3	<i>Waa'ee gargaarsa duraa namoota wantoota adda addaa liqimsuudhan hudhamanii fi dararamanii godhamuu qabu dhageessee beektaa?</i>	Eeyyen			Lakki
4	<i>Daa'imman wantoota adda addaa liqimsuudhan hudhamuu ykn dararamuu dada'u.</i>	0	1	2	3
5	<i>Namoonni jajjaboon wantoota adda addaa liqimsuudhan hudhamuu ykn dararamuu dada'u.</i>				
6	<i>wantoota adda addaa liqimsuudhan hudhamuu ykn dararamuun baay'inaan daa'imman qunnaama.</i>	0	1	2	3
7	<i>wantoota adda addaa liqimsuudhan hudhamuu ykn dararamuun baay'inaan namoota jajjaboo qunnaama.</i>	0	1	2	3
8	<i>wantoota adda addaa liqimsuudhan hudhamuu ykn dararamuun walqixa namoota jajjaboo fi daa'imman qunnaama.</i>	0	1	2	3
9	<i>Namoota tin kan godhu wanta dhangala'oo qofadha.</i>	0	1	2	3

### ***Kutaa III: Ilaalcha***

*Gaaffileewwan ilaachaa dhimma namoota wantoota adda addaa liqimsuuahan hudhaman ykn dararaman.*

- 1) *Namoota wantoota adda addaa liqimsanii hudhamaniif ykn dararamaniif gargaarsi atattamaa barbaachisaadha. waliigala walii hingalu*
- 2) *Eeyyumtuu gargaarsa duraa namoota wantoota adda addaa liqimsanii hudhamaniif ykn dararamaniif godhamu beekuu qaba. waliigala walii hingalu*
- 3) *Wantoota adda addaa liqimsuudhan uummanni akka hin dararamne hambisuun baay'ee salphaadha. waliigala walii hingalu*
- 4) *Wantoota adda addaa liqimsuudhan hudhamuun ykn dararamuun yoo yaallamuu baatan rakkina jiraachuu ykn du'aa hin fidu. waliigala walii hingalu*
- 5) *Osoo mana yaalaa hin adeemiin tinnitaa too'achuun ni danda'ama. waliigala walii hingalu*
- 6) *Hamma danda'ametti namoota wantoota adda addaa liqimsanii hudhaman ykn dararaman mana yaalaa geessuu qabna. waliigala walii hingalu*

**Kutaa IV:**

*Gaaffileewwan gargaarsa duraa namoota wantootaa adda addaa liqimsuudhan hudhamanii fi dararamaniif godhaman; gochaa, beekumsaa fi ittisarratti hundaa' un. **Gaaffilee armaan gadiif deebii tokkoo ol filachuun nidanda'ama.***

- 1) *Mallattoo akkamiit namootata wantootaa adda addaa liqimsuudhan hudhamanii dararamuuti jiran irraa hubattaa?*
- A) *dhaabachuu dadhabuu(kufuu)*                      B) *sagalee uumuu dadhabuu*  
C) *qufaa'uu dadhabuu*                                      D) *harka lamaan qoonqoo qabachuu.*  
E) *hargansuu dadhabuu*                                      F) *kan biroo yoo jiraate: \_\_\_\_\_*
- 2) *Daa'imni umuriin isaa/ishee waggaa  $\leq 1$  taate tokko osoo nyaata nyaatuu tasa nyaanni osoo hudhee, hargansuu fi dubachuu dadhabdee maalgoota(nyaatichi ijaan hinmuul'atu)*
- A) *garaa isaa/she gadi gaffa'uu.*                      B) *buufata fayyaa geessuu*  
C) *saggoo rukutuu*    D) *dugda daa'imittii duuban kabaluu*  
E) *laphee daa'ima gadi gaffa'uu*                      F) *kan biroo yoojiraate: \_\_\_\_\_*
- 3) *Daa'imni umuriin isaa/ishee waggaa  $\leq 1$  taate tokko osoo nyaata nyaatuu tasa nyaanni osoo hudhee, hargansuu fi dubachuu dadhabdee maalgoota(nyaatichi nimuul'ata)*
- A) *keessaa baasuu(ofumakeen)*                      B) *buufata fayyaa geessuu*  
C) *saggoo rukutuu*    D) *dugda kabaluu*  
E) *laphee gadigaffa'uu*                                      F) *kan biroo yoojiraate: \_\_\_\_\_*
- 4) *namni jabaan tokko osoo nyaata nyaatuu osoo nyaatan hudhamee dararamuu isaa agartee maalgootaf ( nyaatichi ijaan hin muul'atu)*
- A) *saggoo rukutuu*    B) *dugda kabaluu*  
C) *laphee gadi gaffa'uu*                                      D) *garaacha gadi gaffa'uu*  
E) *kan biroo yoojiraate: \_\_\_\_\_*

5) namni jabaan tokko osoo nyaata nyaatuu osoo nyaatan hudhamee dararamuu  
isaa agartee maalgootaf ( nyaatichi ijaan ni muul'ata)

A) saggoo rukutuu

B) dugda kabaluu

C) laphee gadi gaffa'uu

D) garaacha gadi gaffa'uu

E) keessaa fuudhuu yaalu

F) kan biroo yoojiraate: \_\_\_\_\_

6) Daa'imni takka osoo waa erga liqimsitee booda qufaatii hamaan guyyaa tokkof  
irra ture si qunnaamee; maal gootaf?

A) ofumaan keessaa fuudhuu

B) buufata fayyaa geessuu

C) homaa hingodhuuf

D) kan biroo: \_\_\_\_\_

7) Akkamitti wantoota adda addaa liqimsuudhan hudhamuu fi dararamuurraa ittisuun  
danda'ama (**hirmaatota gaafii kutaa III lakk 3<sup>ff</sup>a waliigala jedhan qofaaf**)

A) wantoota jjaboo daa'imanirraa fageessuu. B) yeroo nyaataa haasa'uu dhiisuu

C) yeroo daa'imni harma hootu taphachiisuu dhiisuu. D) nyaata haalan alanfachuu.

E) kan biroo yoojiraate : \_\_\_\_\_