ADDIS ABABA UNIVERSITY
FUCULTY OF MEDICINE
DEPARTMENT OF COMMUNITY HEALTH

Assessment of perceptions, beliefs and practices of childhood diarrheal disease management in Karrayu community, Fantale Woreda, Oromia, Ethiopia

By

ALEMU SORI (BSC)

Advisor- Fikire Enquosilassie (BSC, MSC, PhD)

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Lists of abbreviation

CI- Confidence interval

DHS- Demographic and Health Survey

GORS- Glucose Supplemented Oral Salt Solution

OR- Odds Ratio

ORS- Oral Rehyderation Salt

SSS- Sugar Salt Solution

UNICEF- United Nations Children Fund

WHO- World Health Organization

Summary

Diarrhea as major cause of illness and death among children in developing countries attribute the problem with belief system which is inconsistent with recommended intervention.

A cross sectional study was conducted aiming to assess beliefs and perceptions of types, causes, signs/ symptoms of severity and action taken and how these beliefs influenced actions of mothers/ households in karrayu community. It was done in rural Fentale, East Shoa zone, Oromia region. The study participants included 405 households with under five children selected from six kebeles. Data was collected using structured questionnaire supported by in-depth interview.

The results showed that under five diarrhea attack rate was 33.3%. Perceived types of childhood diarrhea were Yellow (52%), green (79%), watery (55%) and chichita (71%). evil-eye, teething, and eating improper food, 40.5%, 64%and 83.5% respectively identified causes of diarrhea.
Perceived types identifications helped mothers/households to decide on taken actions (80.5%). Besides of this, the study showed that behavior of mothers/ households on practice of child hood diarrheal management influenced by community explanatory method of diarrhea illness causation. Hence, to get the desired behavioral changes of households on recommended childhood diarrheal disease management, the educational message must consistent with existing beliefs, uses familiar words and examples to explain new ideas.

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1. Introduction

According to World Health Organization (WHO) report 2003, diarrheal disease is the third leading cause of death among children in developing countries (1). Similarly in Ethiopia, Federal Ministry of health reported that 20% of child mortality is attributed to diarrheal disease and the two weeks prevalence of diarrheal disease among under five years of age is 24% (2). In short, diarrheal disease is the major health problem in developing countries.

The common cause of diarrhea in children throughout the world is infection of the intestine (3). Also it is common for children in developing countries to have between 3 and 11 diarrheal episodes per year per child (4). The infection of intestine can causes intestinal losses of fluid and electrolyte which are relatively large and may progress rapidly to cause dehydration. And having multiple and persistent episodes of diarrhea can causes nutritional deficiencies. Through loss of water and electrolyte from the body and nutritional consequences diarrhea can cause deaths in children (5).

The most important intervention during the occurrence of diarrhea are the replacement of fluid losses and continued feeding during the episodes and increases 5catch-up feeding following the episodes (5). However, there is a challenge among mothers/ care givers in promoting the practice of increased fluid and continued feeding for diarrheal management (5).

The common practices are attributed to ones belief and perception of causes, types, signs and symptoms of diarrhoea (5). For example, ethnographic study done in rural district of Kwazulu/ Natal, South Africa on description of locally perceived diarrhea types, signs symptoms, causes and action taken showed that;

i). not all conditions of frequent and watery stool were perceived as diarrhea,

ii). sign of dehydration were not always attributed to loss fluid and

iii). medical care and oral rehydration therapy were considered useless in condition of supernatural causation (6).

Ethnographic study done in Mana destrict, Jimma zone, found that, types of childhood diarrhea and the remedies to be taken were varied. Also Hadji, evil-eye, teething and bird identified as cause of frequent loose of stool for which the degree of concern and the treatment resorts were varied (7).

Because of this, Common to numerous societies in the developing world is the coexisting of several medical systems, between which people move back and forth in seeking care (4). As a result, mothers' conceptions about the illness and their expectations about treatment often are at odds with those of physicians (4). This is at least one of the reasons why physicians' advice is not always followed or even understood by mothers. Therefore, it is the health sectors responsibility to find effective ways of delivering their interventions in ways of that culturally appropriate for the population. The fact that diarrheal episodes managed by mothers depending on their cultural belief systems on type identifications and causes explanations with no or little medical knowledge should not be a deterrent to looking for common ground of understanding between them and the health sector.

This was the study aimed to assess belief systems that explain illness, its causes and what actions are usually taken, during diarrheal episodes in order to integrate messages promoting fluid administration and feeding with existing patterns of diarrhea management.

2. Literature Review.

2.1 Diarrheal magnitude and Severity

Diarrhea ranks third as a cause of childhood death in developing countries. The World Health Organization (WHO) report of the year 2003 revealed that prenatal condition accounts about 23.1%, lower respiratory conditions 18.1%, diarrheal disease 15.2% and malaria 10.7% as cause of childhood deaths in developing countries. The most common cause of sever diarrhea in children throughout the world is intestinal infection. And it cause intestinal losses of fluid and electrolytes which are relatively large and may progress rapidly to cause dehydration (1).

Most episodes of childhood diarrhea, last one to seven days, and are characterized by frequent loose or watery stool. Deaths associated with this type of diarrheal results from dehydration (5).

It is common that in developing world to have between 3 and 11 episodes of diarrhea per year per child, and most diarrheal episodes occur during the first two years of life. Incidence is highest in the age group 6-11 months, when weaning often introduced. This pattern reflects the combined effects of a declining level of maternal acquired antibodies, the lack of active immunity in the infant; the introduction of food that may be contaminated with faeces when infant start to craw (8). Besides of these, children often lose their appetite and may lose weight. Persistent diarrhea (lasting 14 days or more) or recurrent diarrhea can lead to death through negative effect on nutrition status. Several studies have shown that children with persistent diarrhea are more likely to die than children with diarrhea of short duration (5).

The Federal Ministry of Health of Ethiopia report showed that the two weeks prevalence of diarrhea for under five children being 24% and attributed to 20% of under five deaths (2). Also the two weeks prevalence of diarrhea for under two in east Harerghe was 38% (2).

2.2 Management of Diarrheal disease and care seeking behaviors of mothers

In the 1980s studies showed that the importance of feeding children during diarrhea episodes, not only to reduce the nutritional impact of diarrhea but also to shorten the duration of attack. So, continued feeding was included as one of the indicator of appropriate management in 1988 by UNICEF. In 1990-1991 the emphasis was shifted to the amount of fluid given rather than the type of fluid and the indicators were modified accordingly. From 1993 onwards the indicators of choice was increased fluid plus continued feeding (9). But the main concern is that of many caregivers stop feeding when children have diarrhea is to stop the loose stool (5).

One of the most revolutionary discoveries of this century was that the sodium and water lost in diarrhea can be replaced orally. The mechanisms by which water and sodium are absorbed across the intestinal wall remain intact during the occurrence of diarrhea. Absorption can be increased if sugar, starch or certain other carrier molecules are present. Therefore, sodium and sugar or starch is the basic ingredient of fluids used for oral dehydration (5).

Consequently, the key cornerstone to most national diarrheal diseases control program is the use of Oral Rehydration salt Therapy (ORT). The first implemented and most widely applied to these therapies is pre packaged, Glucose supplemented Oral salt solution (GORS). GORS has been demonstrated to be effective in treatment of acute childhood diarrhea, and achieve the intended aim of enhanced fluid reapsorptions, the avoidance effect on stool output and consistency and duration of diarrhea which leads care takers to conclude it is not working (8).

Although control of diarrheal disease programs have been fairly successful in convincing caregivers to introduce ORS and SSS, there is still reluctance on continuation and giving sufficient amount of these fluids throughout the diarrhea episode. One of the reason for this reluctance is a mistaken perception that extra fluids will make the diarrhea worse. Although

caregivers want and encourage their children to continue eating, they often shift the diet to more dilute or softer foods that are perceived to be easier to digest and that may be of lower nutrient density (5).

In Ethiopia the majority of acute childhood diarrhea episodes are treated at home, usually with fluid and food restriction (10). Data from Ethiopia Demographic and Health Survey 2005 showed that in Oromia region from children under five years of age with diarrhea attack only 23.7% were treated at health facilities and from these 22% treated with ORS and 40% treated with ORT (11).

In contrast, dehydration occurs when children lose more fluid through diarrhea than they are able to take in. It is more likely to occur when stool is very watery, Frequent, or large and when diarrhea is accompanied by vomiting. Dehydrated children may become less active and more irritable. They may have increased thirst or, in sever or dangers diarrhea episodes include fever, bloody diarrhea, lose of appetite, diarrheal lasting longer than 14 days and sever under nutrition. Caregiver should be recognizing and responding to those cases of diarrhea because should be evaluated and / or treated by trained health care providers (5).

It would be an overwhelming task to teach caregivers all the sign and symptoms of dehydration as well as other danger sign that are associated with diarrhea. It is important to consider the result of ethnographic research when selecting signs and symptoms for emphasis. Because caregivers in different culture may see, interpret and respond to the same sign and symptoms in different ways. Ethnographic data can identify signs and symptoms that first are of particular concern to caregivers. Second lead to in appropriate house hold management (5).

2.3.-Cultural Context of diarrhea.

All cultural groups have their own local belief systems that explain illness, its causes, and its consequences (5). Beliefs about illness are related to ideas about how the body works and about what forces make things happen in the world. Although some beliefs existed long, local beliefs are constantly changing, and today they usually include some concepts from the biomedical model of disease.

Most cultures recognize different local types of diarrhea distinguished by the appearance of the stool, the presence or absence of certain other signs and symptoms, the presumed causes of the episode or the characteristics of individuals with the condition (5). Most types are distinguished by perceived cause, constipation, indigestion, excess" heat" in the body , spit possession, falling of the child suddenly, and worms . Some are related to other disease or body processes, such as cough and cold, feeding, ear ache, measles or sunken fontanel. The only type that is distinguished by the appearance of the stool is bloody diarrhea (5). In northern India, diarrhea classification system is based predominantly on the appearance of the stool, yellow, bloody, water (pant dust, and bits and pieces) (5).

There are many perceived causes of diarrhea, with certain themes that are common across cultures (5). The concept that teething causes diarrhea is among the widest spread. In many parts of the world, diarrhea is attributed to supernatural influences such as evil eye or spirit possession. The idea that an imbalance of “hot" and "cold" causes illness is common in Latin America, Asia and Africa. Other perceived causes of diarrhea include the environment (such as hot and dry weather or" dirty" surroundings), physical actions of the child (such as falling down or sitting in one place too long), behavior or action of the parents, coexisting diseases, and eating contaminated food or inappropriate food. In many culture the perceived cause of diarrhea determines how the episode is managed (5).

For example, in rural district of Kwazulu/natal, South Africa, descriptive study was carried out using validated ethnographic method information (6). Description of locally perceived diarrhea types, signs, symptoms, causes and actions taken and mismatches with medical concept were recorded. Eleven local types of diarrhea were identified , which were classified into three categories:(a)- Natural causation , (b) Super natural causation and (c) Caused by germs or changes in diet: conceptual mismatches included :- (i)- Not all conditions is frequent or watery stool were perceived diarrhea. (ii)- Hygiene was considered irrelevant in the causation of a and b. (iii) - sign of dehydration were not all ways attributed to loss of fluid. (iv)- Medical care and oral dehydration therapy were considered useless in condition b. (v)- Potentially harmful treatments, such as herbal, enemas are always preferred in b, some times a. These mismatches carry the potential to hamper health promotion, predispose to delayed and poor care and may need to selection bias, under and misreporting and poor compliance in research.

In short, a description of local beliefs about types of diarrhea, perceived causes, and usual action taken does not provide a complete picture of the cultural context of diarrhea. It is important to understand how the different beliefs fit together with the realities of every day life to influence behavior (5).

2.4. Illness causation theory

Research has shown a wide range of culturally defined action in response to diarrhea and several actions may be taken at the same time or they may be sequential.

Possible actions are :-(i) Delayed or no action, (ii) changing feeding patterns, (iii) changing the type or amount of fluids given, (iv) giving traditional home remedies, (v) changing the behavior of child (preventing the child from going out in sun or running), (vi) administrating drugs from drug store or other sources, administrating SSS or ORS, (vii) consulting traditional or religious healers, and doctors in public clinics or private practice (4).Therefore, the goal of ethnographic research is not only to describe actions taken in response to

diarrhea, but also to explore perceptions of weather treatment work or not, and if and when they are worse the effort (5).

All societies have health care systems beliefs, customs, specialists and techniques aimed at ensuing health and preventing diagnosing and curing illness. A society's illness causation theory is important for treatment (12). This indicates that different ethnic groups and cultures recognized different illness, symptoms and causes and have developed different health- care system and treatments strategies (13).

Saunders (1954) suggests that:- a medical system's the sum total of a person or a group's health-related knowledge, beliefs, techniques roles, norms, values ideologies, customs, rituals and symbols (quoted in molver 1987: 12) (14).

The critical interpretive approach focuses on the way in which all knowledge relating to the body, health and illness is culturally framed, modified and remodified in a dynamic process through time and space. That means, people's understandings and interpretations pertaining to bodily functions, health and illness shaped by existing culture, and they under go continuous changes through time, and show certain differences cross-culturally (15).

As a matter of fact, every society has a certain body of knowledge which is readily available to any person who wants to know about it, and this is the basis of non-specialists treatment, practice that have often been called "home remedies," but are more use fully taken as individual and family-based health care (quoted in Welsch 1992: 38) (15).

Lay Explanatory Model suggested by Kleinman, provide explanations for five aspects of illness: 1) the etiology of the condition, 2) the timing and mode of onset of symptoms, 3) the path physiological processes involved, (4) the natural history and severity of illness and 5) the appropriate treatments for the condition (16). These models are marshaled in response to a particular episode of illnesses, and are not identical to the general beliefs about illness that are held by that society. Lay EMs tend to be idiosyncratic and changeable, and to be heavily influenced by both personality and cultural factors. They are partly conscious, and partly

outside awareness, and are characterized by ‘vagueness, multiplicity of meanings, frequent changes, and lack of sharp boundaries between idea and experience.

Another way of looking at this process is examine the sort of questions that people ask themselves, when they perceive themselves as being ‘ill’. These are; 1) what has happened? (This Included organizing the symptoms and signs into recognized pattern and giving it a name or identity). 2) Why has it happened? (Explaining it’s an etiology of the condition). 3) Why has it happened to me? (Trying to relate illness to aspects of the patient, such as behavior, diet, body-build, and personality or hereditary). 4) Why now? (The timing of the illness and its mode of onset, suddenness or slow). 5) What would happen if nothing was done about it? (its likely course, out come, progress and dangers). 6) What should I do about it? (the situation treating strategies, including self-medication, consultation with friends or family, or going to see doctor). Where many people in a culture or community agree about a pattern of symptoms and sings –and its origin, significance and treatment –it become an illness entity or folk illness, with recurring identity. This identity is more loosely defined than medical ‘disease’, and is greatly influenced by the socio-cultural context in which it appears (16).

Lay theories about illness are part of wider concepts about the origin of misfortune in general. They are also based on beliefs about the structure and function of the body, and the ways in which it can malfunction. Even if based on scientifically incorrect premises, these lay models frequently have an internal logic and consistency, which helps the victim of illness ‘make sense’ of what has happened, and why. In most cultures they are part of a complex body of inherited folklore, which is often influenced by concept borrowed from the medical model.

In general, lay theories of illness place the a etiology of ill-health (1) - with the individual patient, (2)- in the natural world, (3)- In social world or (4)- in supernatural world.

1- ***Within Patient***

Lay theories that locate the origin of ill-health within the individual deal mainly with malfunctions within the body, sometimes related to changes in diet or behavior.

2-***In the natural world***

This includes aspects of the natural environment, both living and inanimate, which are thought to cause ill-health. Common in these groups are climate conditions such as excess hot, cold, wind, rain, snow or dampness.

3-***Within social world***

Blaming other people for one's ill-health is a common feature of smaller- scale societies, where inter-personal conflicts are frequent. In non-western societies, the commonest forms are witchcraft, sorcery and the 'evil-eye'. In all three, illness (and other forms of misfortune) is ascribed to inter-personal malevolence, whether conscious or unconscious.

The Evil-Eye as an etiology of illness has been reported through out Europe, the Middle East and North Africa. Spooner defines the main feature of evil-eye 'it relates to the fear of envy in the eye of the beholder, and (that) is influence is avoided or counteracted by means of devices calculated to distract its attention, and by practices of sympathetic magic (16).

2.5 Rationale of the study

Increased fluid intake with continued feeding is choice indicators of appropriate management to decrease childhood deaths due to diarrheal disease since 1983. But diarrheal disease remains as leading causes of children death in developing countries. This is due to the challenges faced on convincing care givers/parents/on promoting increased fluid intake and continued feeding during episodes. Additionally, care givers/parents/ as a members of community or ethnic group or cultural groups they have their own belief system that explain illness, its causes and its consequences and depending on these, they have developed different health care system and treatment strategies. Similarly an individual's decision about household management of illness and about when and where to seek care are influenced by his/her beliefs and perceptions of types and severity of signs and symptoms as well as by finical considerations. These beliefs/ perceptions are inconsistent with recommended management and make difficult to bring behavioral change on care giver/ parents.

Assessing, the perceptions, beliefs and practice in childhood diarrheal disease management of the community, therefore provides a clue for further intervention such as preparing educational messages based on existing beliefs. On the other hand, studies on cultural context of childhood diarrheal disease are scarce.

This is the reason why, this study aims to describe locally perceived childhood diarrhea types, causes signs and symptoms of severity, action taken and to assess how these perceived local beliefs influence behavior. And the result from the study would be used to design effective intervention strategies for deaths caused by childhood diarrheal disease in study community and communities with similar culture.

3- OBJECTIVE OF THE TUDY

3.1. General Objectives

To assesses perceptions, beliefs and practices in childhood diarrheal disease management.

3.2. Specific Objectives

3.2.1. To determine the magnitude of diarrhea attack in children less than five years.

3.2.2. To determine community perception about types, causes and sign and symptoms of severity of common childhood diarrhea.

3.2.3. To identify the practice of childhood diarrhea disease management.

3.2.4. To explain how different beliefs in childhood diarrheal disease explanation influence behavior of households.

4- METHODS OF THE STUDY

4.1 Study setting:-

A community based cross-sectional study was conducted in Karrayu community that lives in upper awash valley, Fantale district Eastern Shoa zone about 120K.M East of Adama town. The district is organized into 18 rural kebeles (where Karrayu settled) and two town kebeles. Metehara sugar factory is located at the center of this district, and Awash River bisects the district into two from West to East. Population of rural settlements of the (Karrayu community) reached 60,089 (data from Eastern Shoa zone health office).

Karrayu Oromo consists of the two main tribes Basso and Dulacha. The blood relations of every main tribe present as far as a family (balbala).Besides this they have an organizational structure based on political and social objectives, that was aimed at getting rid of conflicts and cement the unity and the relation of the different Karrayu tribes (17). They have their own cultural administration and traditional laws which are governed by tribe leaders and elders. Respecting elders, keep from breaking taboos' in the community and helping sick person and helping each other socially and economically are the main customs in the community. On other hands, all cultural groups have their own local belief systems that explain illness, its causes, and its consequences (4). Due to this, they have their own illness cause definitions and treatment strategies that derived from their past generations. Also study done on Mecha Oromo lived in Weliso showed that 70% of illnesses treated traditionally by using home remedies, traditional healers, holy waters and others (13).

The Karrayu branches of Basso and Dulacha had their old history of common Politico-Religious centers, first Horra Samma or Tullu Bosat and latter followed by another center known as Gadaa Kalaalaa or Melka Sadii (the intersection of the three rivers of Awash, Buliga(kesem) and Qabana). But, on the recent most of Basso main tribes are Muslims by religions (17).

Their socio economic situation depends on the possession of livestock as others pastoralist community. Due to these, they are nomadic and have no permanent settlements. This makes difficult to fulfill sanitary facilities and to get clean water. From the district health report latrine usage is below 3%, and no more than 2% of the population gets clean water. Waste are disposed at any place around their home on which their children plays.

The health coverage of the district is 25%. In rural areas there are only three health posts which are functioning. And data of the district health performance showed that health service usage of the rural population is very low. Due to all listed above problems childhood diarrhea is from the leading cause of morbidity and mortality of children in the community.

4.2:- Study population

4.2.1: Source of population

The source of population was households with under five children in study area. There were an estimated of 5,656 households in the rural areas of the district according to the zonal health department.

4.2.2- Sample size:

The sample size was determined on the bases of national under five dirrheal disease prevalence (24%). It was calculated using formula for the minimum sample size needed for an interval estimate of a population proportion.

Formula for sample size calculation:-.

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

Considering the size of the source of population, the final sample size was calculated using the formula:-

$$nf = \frac{n}{1+\frac{n}{N}}$$

- ✓ z is the probability of the error going to estimate.
- ✓ d is precision required.
- ✓ n = size without considering source.
- ✓ nf= final sample size.

- ✓ N is study population.
- ✓ p is prevalence of diarrhea of two weeks duration.

ASSUMPTION

- p=.24 Diarrhea prevalence= 24% was taken from report of federal MOH Ethiopia (2).
- 95% confidence interval.
- 0.04 degree of freedom (error of estimate).

THEN:- $n=\frac{3.84 \times .1824}{.0016}$

$nf = 1+\frac{437.76}{5656} = 407$ households with under 5 children.

- 10% for no response = 41
- The required sample size is 448 house holds with under five children.

4.2.3- Sampling procedure

Six rural kebeles were selected from eighteen kebeles of the Karrayu community settlements using lottery method. The sample size was distributed between six kebeles proportional to size of the estimated households. The first sample was identified randomly in both six kebeles and subsequent households were identified systematically (every four houses) until total sample needed in the kebele is achieved. Where there were no under five children the next house was included. Within each selected household only one child was selected using lottery method whenever there is more than one under five children.

4.3. Data collection procedures:-

4.3.1 Data collection tools

Structured questionnaire composed of open and closed ended questions was prepared by principal investigator first in English and translated to Oromiffaa (Annex 1). It was prepared depending on literature reviews and identified variables to be measured.

The variables included in questionnaire were (i) Socio-demographic characteristics, (ii) diarrheal attack and action taken for attack, (iii) wordings mothers used for loose stool, (iv) mothers beliefs'/ perceptions on childhood diarrhea; types, causes, action taken and how they can identifies, (v) signs and symptoms of severity that mothers can identify and (vi) attitudes of mothers on transmissions of childhood diarrheas and modern treatment.
For operational definition, the common meanings were used.

Pre-test was conducted on near rural kebele (Galicha) using prepared questionnaire by seven trained data collectors and two supervisors for six hours. The data was gathered from 16 households. Depending on responses given by respondents the corrections were taken for some choices of variables for the inquiries in the questionnaires.

4.3.2. Data collectors;-

The data collectors were recruited depending on proposal designed on training manual prepared for training data collectors, with education level of above 10^{th} grade, from Karayu community. The selection was conducted with help of the district administrators.

Training was given on the basic technique of interviewing, sampling selection of the study groups for two days. They were practiced on pre-testing of the questionnaire after their training.

4.3.3. Data collection procedure;-

The data collectors approached the selected respondents first by greeting and continued on explanations of the aim of the study. Then they asked for presence of under five children. If there is under five children in households the data collectors informed the respondents clearly what they needed from them with its purposes. Interview was conducted after verbal consent of respondents achieved. A household was revisited for two more times when the mother is not present on first visit.

The data collectors were supervised daily by two MPH students and problems faced on data collection were corrected on time. The filled questionnaires were checked daily and if there was

a problem the solution given daily. And all the finished questionnaires signed by supervisors after checking for its completeness.

4.4- Data processing and Analysis:

The data was checked for its consistency and completeness every day on the sites by supervisors. At the end of data collection the principal investigator checked all data collected and editing for more than 3 days. After preparing coding instructions the data entry was done using EpI-Info statistical program and data clearance and analysis were done using SPSS soft ware. Descriptive statistics (calculation of percentages), Odds ratio with 95% confidence intervals were used to analyze the data.

4.5- Qualitative data

Qualitative data was collected using in-depth interview of informants depending on emergent study design. Thematic semi structured open ended questions were prepared for guiding depending on information gathered by quantitative study. The items were information's on beliefs of management practice, types and causes of childhood diarrheas those used to understand how those beliefs influence behavior of households in the community.

The in-depth interview was conducted by principal investigator for two weeks. To understand the study community beliefs, customs on conversation with each others and to developed trust among the community, interviewer visited the study area for fourteen days.

Four informants were selected using purposive sampling method, among the two main tribes in the community. The selection was depending on assumption that all elders have equal knowledge on their community cultural contexts. The interview was held at settlements of the informants on convenient time. And most of the interviews were conducted at afternoon and evening when the informants came back from their business.

The data were documented using field note and transcribed for each interviews at the end of interviews. The data analysis was done using narrative data analysis method. The result was

described by narrating the findings of in-depth interviews. And the trustworthiness of the result was showed by discussing with similar theory.

4.6 Ethical Consideration

The study was approved by Addis Ababa University, Faculty of Medicine, Public Health Department and Medical Faculty Research Ethical Committee. Letters for permission was written for Zonal administration, Zonal health department, District administration and health department from A.A.U. Faculty of Medicine, Public Health Department. And district administrator written permission letter to study kebeles before the study started. Verbal consent obtained from each interviewed mothers after informing the aim of the study. Similarly selected informants for in-depth interview were informed about the study and gave their verbal consent for their conversations with principal investigator. A respondent name was not listed on any information's gathered. The explanations and interviews were conducted by respondent's native language, Oromifa.

5. Results

5.1- Socio demographic and households' characteristics of respondents.

A total of 408(100%) study subjects have participated in the study. Among these, very few 3(0.74%) households' data were omitted from the analysis due to incomplete information. Hence, 405(99.26%) households with complete information were included in the analysis of the study.

The respondents were all mothers. Most of them (79%) were in age of 19-40 years. Two hundred sixty-six (65.7%) of mothers were Muslims, 121(29.9%) of them were Waqefetas and 18(4.4%) were Christians by religion. Educational status of the mothers were illiterate 350(86.4%) and literate 55(14.6%).

Assessment of households on sanitary usage showed that 404(99.8%) of households were disposed house wastes on open field and 95.8% of them were defecate on open field. Eighty nine (22%) of households were reported that they got drinking water form pipe, and others got from river (34.8%) and pound (43.2%).

Table 1. Socio-demographic and household characteristics of care takers (mothers); Fentale district, September 2006. (n=405)

Characteristics	Frequency	percent
Age of mothers		
<19 years	16	4.0
20-29	194	47.9
30-39	127	31.3
40-49	68	16.8
Religion of mothers		
Muslim	266	65.7
* Waqefeta	121	29.9
Chiristian	18	4.4
Educational status of mothers		
* Illiterate	350	86.4
* Literate	55	14.6
Source of water for the households		
River	141	34.8
Pound	185	43.2
Pipe	89	22.0
West disposal methods of households		
Dispose any where	404	99.8
Using disposing pit hole	1	.2
Latrine usage of households		
Using open field	388	95.8
Using latrine	17	4.2

* Waqefataa:-Worship in “Waaqa”. Waaqa is the creator of all things and he has a power to do and undo everything (16).

* Literate = Able to read and write with or with out formal education.

* Illiterate = Unable to read and write

5.2-Perceived threat of diarrhea disease, types, and terms used for childhood diarrhea.

A total of 365(89.4%) of the mother reported that diarrhea is the health problem of their community. And they used ‘Butucha’ 294(72.65) and ‘Gara-yasa’ 144(35.65%) for loose stool with abnormal frequency of their child.

The assessment done on how households/mothers can identified types of childhood diarrhea was showed that, mothers were identified using color and appearance of diarrhea 353(87.2%), by child condition 165(40.7%), by diarrhea contents 158(39%) and by perceived causes 141(34.8%).

The study reveled that there are different types of childhood diarrhea those perceived by mothers depending on their identification methods. Yellow 211(52.1%) and green 391(78.8%) those identified by using color of diarrhea, and watery 223(55.1%) and chichita 286(70.6%) those identified using appearance of diarrhea and its contents.

Literatures described that identified types of childhood diarrhea determine the action taken. Due to this, mothers asked to respond why they identified types of childhood diarrhea. The data showed that 326(80%) to decided on action taken and 220(54.1%) to identified the causes of childhood diarrhea.

Table 2. Perceived threat of diarrhea disease, childhood diarrhea types and terms used; Fentale district, September 2006. (n=405)

Perceptions	Frequency	Percent
Diarrhea is health problem of the community		
Yes	365	89.4
No	45	10.6
Terms used for loose stool of their children		
Gara-yasa	144	35.6
Butucha	294	72.6
How to identify type's childhood diarrhea		
Using color and appearance of diarrhea	353	87.2
By child condition	165	40.7
By its contents	158	39.0
By perceived causes	141	34.8
Types of childhood diarrheas		
Yellow	211	52.1
Red	95	25.5
Green	391	78.8
Watery	223	55.1
* Chichita	286	70.6

* Chichita = Watery diarrhea with little contents of stool material

5.3- Mothers perception on causes of childhood diarrhea, signs and symptoms of severities, and transmission.

The identification of perceived causes by mothers reveled that, mothers can identified causes of childhood diarrhea those they perceived as causes depending on types of diarrhea identification 262(64.7%) and child conditions identified by them 216(53.3%). Different types of perceived causes by mothers on the study were evil-eye 164(40.5%), teething 259(64%), eating inappropriate food 338(83.5%), sucking on hot breast milk 291(71.9%) and amoeba 156(38.5%).

On the study perceived causes were influenced the attitude of mothers on transmission of childhood diarrhea. Due to this from total interviewed mothers 53.3% of them were reported that childhood diarrhea transmitted if it caused by amoeba as responded by 191(88.4%).

Assessment of mothers beliefs on causes of sunken fontanel showed that, they believed that it caused by uvelities 265(65.4%), wan-ijole 121(29.9%) and 98(24.2%) believed that it is not illness. But any mother did not report that it caused by dehydration. Sign and symptoms of severity of childhood diarrhea those reported by mothers were weakness 292(72.1%), combined weakness with vomiting 208(51.4%) and diarrhea continued for long duration 268(66.2%), which showed that mothers perceived multiple signs and symptoms of severity of diarrhea.

Table 3. Causes, identifying causes and transmittable of childhood diarrheal disease; Fentale district, September 2006.

Perceptions	Frequency	Percent
Causes of childhood diarrheas		
Evil-eye	164	40.5
Teething	259	64.0
Eating new and unsafe food	338	83.5
Sucking on hot breast milk	291	71.9
Amoeba	156	38.5
How causes identify		
By types of childhood diarrhea	262	64.7
By child conditions	216	53.3
Using color and appearance	102	25.2
Can childhood diarrhea transmitted?		
Yes	216	53.3
No	189	46.7
Childhood diarrheas that transmitted (n=216)		
Caused by evil-eye	36	16.7
Caused by eating unsafe food	65	30.1
Caused by amoeba	191	88.4
Causes of sunken fontanel		
Uvelities	265	65.4
Watery diarrhea	65	16.0
Wan-ijoole	121	29.9
It is not illness	98	24.2
Signs and symptoms of severity		
Changes on child condition (weakness)	292	72.1
Combined symptoms of the disease (Vomiting)	208	51.4
Refuse to eat	121	29.9
Types of diarrhea perceived	73	18.0
Diarrhea continued for a long	268	66.2
Sunken eye	108	26.0

5.4. Modern treatment seeking behavior of mothers and common practices for childhood diarrhea disease management.

Action taken by mothers was determined by identified types 326(80.5%) and identified causes 239(59%). In addition to this, the study showed that perceived management for childhood diarrhea determined by cause identification 300(74.1%). Due to this,71.1% of the mothers reported that there were childhood diarrhea those not treated by modern treatment. They reported that, teething 75.7%, evil-eye78.5%, abdominal belly67% and wan-ijole 66.3% causes of childhood diarrhea those not treated by modern treatment.

Common practices practiced in community were described as tooth extraction 288(71.1%), traditional medicine for evil-eye 215(53.1%), abdominal massage for abdominal belly 210(51.1%) and taking to modern medicine 221(54.6%).

Actions taken for childhood diarrhea perceived by mothers as sever were assessed on the study. The actions were described as, home remedies 202(49.9%), using medication for wan-ijole 199(49.1%) and take to modern treatment 209(52.6%). Besides of this, actions taken for sign of childhood diarrhea severity (dehydration) sunken fontanel were described as applying butter on it 201(49.6%), doing uvelectomy 241(59.5%) and put garlic on it 143(35.3%).

Table 4. Modern medicine treatment seeking behavior and common practices for childhood diarrhea disease; Fentale district, September 2006. (n=405)

Actions to be taken	Frequency	Percent
Can all childhood diarrheas treated with Modern medicine?		
Yes	117	28.9
No	288	71.1
Childhood diarrheas those not treated By modern medicine.(n=288)		
Teething	218	75.7
Evil-eye	226	78.5
Abdominal belly	193	67.0
Wan-ijoole	196	66.3
How decided to take action?		
Depending on identified types	326	80.5
Depending on identified cause	239	59.0
How decided on management possibilities?		
Depending on identified cause	300	74.1
Common practices depending on causes identified.		
Tooth extraction	288	71.1
Give traditional medicine for evi-eye	215	53.1
Abdominal massage for abdominal belly	210	51.9
Take to religious leaders	56	13.8
Take to modern medicine	221	54.6
Actions taken for sunken fontanel		
Applying herbal medicine on it	57	14.1
Appling butter on it	201	49.6
Doing uvelectomy	241	59.5
Giving herbal medicine by mouth	44	10.9
Put smoky tar from tached house on it	68	16.8
Put garlic on it	143	35.3
IT is not disease and no action	120	29.6
Actions taken if signs and symptoms of severity seen		
Trying home remedies	202	49.9
Taking to elder care givers	103	25.4
Taking to religious leaders	4	1.0
Take to traditional healer and Using medication for wan-ijoole	199	49.1
Giving medication juice prepared from lemon ,sugar and water	128	31.6
Take to modern medical care	209	51.6

5.5. Occurrence of childhood diarrhea in the last two weeks by age and actions taken by mothers.

The situation of childhood diarrhea occurrence was assessed by asking whether their children have loose stool with abnormal frequency in past two weeks prior to the study time or not. It showed that from studied under five children 135(33.3%) of them attacked by diarrhea in two weeks duration. The occurrence was high among age groups 6-11 months (36.3%) and 12-23 months (31.11%) as shown in table 5. Additionally mothers asked to respond on actions they took to manage occurred episodes of diarrhea two weeks prior to study. Depending on this, from mothers of those who complained their children were attacked by diarrhea, 27.4% of them were not taken any action 57.4% giving home remedies and 33.3% of them were took to traditional healers.

Table 5. Occurrence of childhood diarrhea in the last two weeks by age and actions taken by mothers; Fentale district, September 2006.

Occurrence and actions taken	Frequency	Percentage
Childhood diarrhea attack last two weeks (n=405)	135	33.3
By age of children (n=135)		
<6 months	14	10.4
6-11months	49	36.3
12-23months	42	31.1
24-59months	30	22.2
Actions taken by mothers (n=135)		
No action taken	37	27.4
Giving home remedies	68	57.4
Take to traditional healer	45	33.3
Restriction of food and water	1	0 .7
Giving drugs from health facilities	4	3.0

5.6 Associations between socio-demographic characteristics with occurrences Of childhood diarrhea, and modern treatment seeking behavior.

Binary logistic regression analysis was done to see associations in between socio-demographic characteristics, occurrences of childhood diarrhea and modern treatment seeking. The results showed that those households who used water from pound and used out side defecation were significantly associated with occurrence of childhood diarrhea. Child of those source of water from pound were about three times more likely to have diarrhea than those with sources from pipe, (adjusted OR= 2.79 (95% CI=1.29-6.10)) and those defecate on field were also about three times more likely to have diarrhea than those were used latrine. Diarrhea occurrence and water source from river shows negative association when compared to water from pipe source which needs justifications. Also table 6 showed that occurrence of diarrhea increased two times in age groups 12-23 months when compared to age groups 24-59 months, (adjusted OR=2.4 (95% CI=1.06-5.46).

Table 6:- Associations between socio-demographic and housing factors and Diarrheal disease occurrence, Fentale district, september 2006.

Characters	Crude OR (95%C.I)	Adjusted OR (95%C.I)
Age of mothers		
<19 years	1.62 (0.54-4.82)	0.70 (0.10-5.71)
20-29 years	0.71 (0.40-1.26)	0.59 (0.26-1.35)
30-39 years	0.80 (0.43-1.47)	0.59 (0.25-1.40)
40-49 years	Reference	
Age of child		
<6 months	0 .81 (0.39-1.70)	0 .59 (0.22-1.63)
6-11 months	1.42 (0.82-2.47)	2.17 (0.98-4.77)
12-23 months	1.59 (0.90-2.82)	2.40 (1.06-5.46)+
24-59 months	Reference	
Education status of mother		
Illiterate	0.27 (0.15-0.49)+	0.63 (0.27-1.45)
Literate	Reference	
Water usage		
River	0 .49 (0.27-.91)++	0.35 (0.17-0.72)++
Pound	1.88 (1.10-3.21)++	2.79 (1.29-6.10)++
Pipe	Reference	
Excretal Disposing		
Outside on field	0 .91 (0.33-2.52)	3.26 (1.01-10.13)
Using latrine	Reference	

+ Significance of Crude RO
++Significance of both Crude and Adjusted OR

Table 7 shows that there was an association between age of mothers less than 30 years and educational status of mothers with modern treatment seeking behavior. Modern treatment seeking behavior was more likely among mothers aged <19 years and 20-29 years when compared to mothers of age 40-49years,(adjusted OR=3.78 (95% CI=1.14-12.51) and (adjusted OR=2.73 (95% CI=1.37-5.45)) respectively.

Table 7:- Association between socio-demographic and housing factors and seeking behavior of mothers to modern medicine treatment; Fentale district, September 2006.

Characters	Crude OR (95%C.I)	Adjusted OR (95%C.I)
Age of mothers		
<19 years	3.30 (1.03-10.48)++	3.78 (1.14-12.51)++
20-29 years	2.39 (1.22-4.68)++	2.73 (1.37-5.45)++
30-39 Years	1.14 (0.55-2.39)	1.18 (0.56-2.49)
40-49 years	Reference	
Age of child		
<6 months	0.16 (0.57-1.25)	0.45 (0.20-1.02)
6-11 months	1.08 (0.62-1.88)	0.88 (0.49-1.58)
12-23 months	1.05 (0.59-1.89)	0.95 (0.52-1.75)
24-59 months	Reference	
Education status of mothers		
Illiterate	1.98 (0.96-4.08)	2.14 (1.12-4.50) +
Literate	Reference	

+ Significance with Adjusted OR

++ Significance with Crude and Adjusted OR

5.7. Narrative analysis of in-depth interview.

Karayu community has beliefs on type identification, cause explanation and practices for childhood diarrheal management contextually. The types of childhood diarrhea are identified using color and appearance of diarrheas, and the causes are explained depending on types of diarrhea and child conditions. They also perceived child weakness, diarrhea with vomiting and watery stool for long duration as sever diarrhea. These all help the households on decision of practices for childhood diarrheal management. To explained deeply how these perceptions and beliefs influenced the behavior of households on management practiced, data of in-depth interview was narrated as follows.

The first informant was 62 years elder of Dhebit kebele. The interview started by asking that, how they manage child with diarrhea in their community. His answer was, “When you said child diarrhea, they are different types with different causes and different managements depending on their causes”.

The interviewee continued his descriptions for questions probed by interviewer. What are the types? And how they can identify? “The types are; Green (magarisa), Yellow (kello),Yolk-like (oota), chichita (watery stool having suspended contents) and watery diarrhea. These are identified by their colors and appearance. To treat these childhood diarrheas their causes must be known by parents”. These causes are:-

1- Teething (Ilike, Dawa’oo) - It is due to a worm developed in the gum of the child. Because of its itching the child relieved by biting his fingers with gum. It shows swelling over the gum and become white at the base. Also it is not painful on incising the gum and taking out the moving worm. There are children who do not develop this cause of diarrhea. Diarrhea caused by teething is continues watery and some times chichita (watery diarrhea with some contents of stool).

2- Ajee:-It can change to ilike (teething). Childhood diarrhea caused by ajee is due to breaking sexual taboos (six months after child birth). During sexual contacts of mother and father the body of mother and baby become hot. This hotness is not comfortable for the

infants because of their body can not resist and hot breast milk from hot body of his mother. These situations of the child lead him to produce diarrhea caused by ajee. Diarrhea caused by ajee also resulted from sucking of breast milk as the mother coming from out side (i.e. before cooling her body). The diarrhea caused by ajee is watery and some times treated by treatment of teething.

3-Evil-eye *(Ija-nama):-* The eyes of all men and women those coming to our home are not pure. And small children, after their birth of few weeks are beautiful, attractive and easily entered the eyes of those people. This caused misfortunes that caused childhood diarrhea and other diseases. Some times these causes are identified after treated for teething. It causes watery diarrhea and yolk like (Oota) and sometimes skin disease combined with it.

4-Wan-ijole: - It is also called wan-sinbira (that comes from birds). Additionally they call it tiru (problem with liver). It has continues diarrhea for long duration with out mixed diseases. Beside of this it shows swelling of abdomen and foot, changes of the eye (white or yellow) and poor appetite and treated for other causes in deferent sectors and not cured. The management is medication from traditional healer, that produce vomiting to correct bile in liver to normal. This cause perceived that not treated with modern treatment. If treated with modern medicine, they assumed that the child die as he takes one injection.

5- Amoeba:- Causes bloody diarrhea and treated by tablets bought from drug venders.

6- Diarrhea caused by improper and new food eating;-This is subsided by it self with food corrections and treated by 'dingetegna' and 'azimud'. If not cured it is due to other causes of childhood diarrhea.

*7- Abdominal belly:-*It is due to falling of child or lifting heavy objects. These falling and lifting heavy objects resulted on displacement of abdominal contents. This caused yolk like (oota) diarrhea and desire to pushing down on defecations episodes. It is corrected with known ogesha, by massaging the abdomen.

Additionally the seconded female informant responded for her question on how they managed their child diarrhea as follows. "They treated with Dingetenya, Azimud, omission of milk and seeing for one day without any treatment. If it is not subsided by the treatment, the causes are identified using types and depending on child condition. Different management practices practiced depending on different cause's identification". Also she was

replayed that there are social influences on management possibilities for childhood diarrhea continued for long duration. This influence comes when the neighbors and social relatives came to ask the sick child. They explained their reasons of the choices depending on others child they think with same case, management and its results.

At the last the two informants replayed that the managements of childhood diarrhea differs according to their types and causes identifications. The types and their causes identifications were the same as the two informants explained above.

Generally the in-depth interview showed that the practices of childhood diarrheas management were practiced depending on type's identification and their cause's explanation methods. They have methods of childhood diarrhea illness causation explanations that may get acceptance in the culture of informants. The explanations were in a meaning full for them and explained why it came to the child. Depending on these explanations the community develops cultural preventive methods like hiding infants from the eyes of pupil and sexual taboos after giving births for six months. Besides of this the informants identifications and explanations of types and causes were similar and it may showed the people in Karayu culture or community agree about it and these childhood diarrheas illness become folk illness. And it is more loosely defined than medical diseases, and is greatly influenced by socio-cultural context in which it appears.

Depending on above explanation the quote from 62 years informant was interpreted as follows. "When you said child diarrhea, they are different types with different causes and different managements depending on their causes". It was the way they explained childhood diarrheas, which was accepted and agreed among the cultural and gave meaning full sense on causes explanations and how it came to child with its treatment matched to cause definitions. This reached us to say that cultural explanatory methods of childhood diarrhea were accepted and meaning full for that it was influences the behaviors of households on practiced child hood diarrheal managements.

Even if based on scientifically incorrect premises, these cultural methods frequently have an internal logic and consistency, which help the victim of illness “make sense’ of what has happened, and why. In most cultures they are part of a complex body of folklore, which is often influenced by concept borrowed from the medical model. It is more loosely defined than medical disease, and is greatly influenced by the socio- cultural context in which it appears (16).

6 - DISCUSSION

Health reports on the recent time were revealed that diarrheal disease is the third leading causes of deaths among children in developing countries. This is through losses of water and electrolyte, and nutritional consequences of multiple and persistent episodes. The interventions of childhood diarrheal disease are replacements of fluid lost and feeding during episodes. However the interventions challenged by influence of cultural beliefs systems on types and cause identifications. Determining the belief systems and how it influences behaviors of households in the community helps to integrate designed interventions with belief systems of the culture or the community. Hence, this study try to described beliefs, attitudes and practiced on childhood diarrheal disease managements and identified how this beliefs influences the behaviors of households on practiced managements.

Results showed that childhood diarrheal disease was major health problems of under five children in study community. (under five diarrhea attack rate of last two weeks was 33.3% and 35% when computed for under two children).It was high when compared to national magnitude (24%). That could be explained by low sanitary facilities usage of the study area and may be the time was when they used pound water for drinking with their cattle that contaminated with cattle's feaces. Analysis done for demographic and housing characteristics with occurrence of diarrhea showed that diarrhea occurrence was higher about three times in those used water from the pound when compared to those used water from the pipe and almost the same for households with no latrine compared to using latrine.

Most of the respondents (89.4) perceived childhood diarrhea as health problem of their community. This perception has its contribution on community to develop their own different manner of responses to childhood diarrheal disease. It was confirmed by this study, that, attitude of mothers on transmissions of childhood diarrhea influenced by their beliefs of cause identification. That was from 53.3% whom reported childhood diarrhea can be transmitted 88.4% of them identified that it is transmitted only if it caused by amoeba.

Similarly the study showed that, actions taken for childhood diarrhea management depends on households' beliefs of types and causes explanations. And choose management possibilities depend on beliefs of causes explanations. In addition of this, qualitative study revealed that the study community has its own disease causation explanatory method that accepted and meaningful for them. And that was influences the behavior of households on practiced of childhood diarrheal management. This concept was fit with lay explanatory model suggested by Kleinman and lay theory of illness causation. Study done in rural district of Kwazulu/ Natal, South Afirica, showed that childhood diarrhea identified as natural causation and super natural causation were Perceived by respondents as not transmitted through hygiene problems(4,6,16). This clarifies that mothers or households behavior on childhood diarrhea were influenced by cultural beliefs on childhood diarrhea cause explanation. Also this influence affects sanitary facility usage promotion.

Types of childhood diarrhea identified in study community depending on the beliefs of households on diarrhea appearance and colors.. Thus were: - yellow, green, watery, chichita, red (bloody) and sub divisions of watery diarrheas like i) - Continues watery diarrhea ii) - Continues watery diarrhea with vomiting iii)-Continues watery diarrhea with weakness and not combined with other illness iv)- Continued diarrhea with skin disease. These sub divisions were to give some boundaries on identifications of teething, evil-eye, ajee, and wan-ijole and to rule out that whether treated by modern treatment or not. Literature on cultural context of diarrhea explain that, most cultures recognize different local types of diarrhea those distinguished by appearance of the stool, presence or absence of certain other signs and symptoms, the presumed causes of the episode, or characteristics of individual with condition. Studies in Baluchistan, identify 13 types of childhood diarrheas each with different name and distinguished using perceived causes, related to other diseases and by appearance (only bloody diarrhea). Similarly on study in northern India, the diarrhea classification system is based predominantly on the appearance of stool (5). People tend to distinguish several locally recognized types of diarrhea that may or may not corresponding to biomedical defined types of diarrhea.

On the study in south Sumatra, the relation ship among types and causes of childhood diarrhea beliefs revealed that the action taken during diarrheal episodes is influenced more by

the types of diarrhea than by its perceived cause or by characteristics of the child (18). This study also confirmed that most(80%) of mother were responded that they decided for actions taken on childhood diarrhea depended on their beliefs of types identification and only (50%) who were said that they also depend on causes identifications. There for, knowledge of local types of childhood diarrhea helps for the development of educational method by name the different local types of diarrhea to emphasize that fluid and food are the initial treatment of choice for all episodes of loose or watery stools (5).

The causes of childhood diarrheal disease identifications by mothers were depending on types of diarrhea and child's conditions. They were identified Evil-eye, teething, eating new and improper food, sucking on hot breast, playing in hot and those reported on in-depth interviews; ajee, wan-ijole, amoeba, cholera and abdominal belly as causes of childhood diarrheal disease. On in-depth interviews the informants clarified that, sucking on hot breast and playing in hot are the reasons to develop diarrhea caused due to ajee. Ethnographic study of diarrheal disease among under five children in Mana District, Jimma Zone revealed that teething, haji, evil-eye and household/ individual compound sanitation are believed as important causes of diarrhea among under fives (7).

Literature from national committee on traditional practices of Ethiopia define teething as, it is the time starting to show first teeth and when the child undergoing the process of teething the gum become swelling, itchy and some times painful. To relief the discomfort the child has a tendency to put any thing in a mouth and rub the gum with it. The logical consequence of this action is that child will usually faced with episodes of diarrhea (19). Other studies showed that, there are many perceived causes of diarrhea and certain themes common across cultures (5). The concept that teething causes diarrhea is among widest spread. In many parts of the world, diarrhea is attributed to supernatural influences such as evil-eye sprit possession. The idea that an imbalance of "hot" and "cold" causes illness is common in Latin America, Asia, and Africa (5). And others perceived causes, physical actions of the child (such as falling down or sitting down in one place too long), behavior or action of parents (breaking taboos), coexisting diseases and eating contaminated food or inappropriate food (5). In many cultures the perceived cause of diarrhea determines how the episode is managed.

Also on this study showed that the management possibility choice depended on childhood diarrhea cause identification. It is necessary to integrate messages promoting increase fluid and feeding during diarrhea episodes with traditional diarrhea treatment. Knowledge of traditional treatments may also help in finding ways to explain the function of ORS or extra fluids.

Common practiced managements of childhood diarrhea among the study community were: tooth extraction, give traditional medicine for evil-eye, abdominal massage for abdominal belly, take to modern treatment and treating with Dingetenya, Azimud and restriction of milk. Besides of these most of mothers (71.1%) were reported that childhood diarrhea those caused due to evil-eye, teething, ajee, wan-ijole and abdominal belly are not treated with modern medicine. Study on harmful traditional practices in Ethiopia showed that the prevalence of milk tooth extraction was 89.2%, (19). And this showed that most of childhood diarrhea identified with causes of teething was managed only by tooth extraction. On other hands, most of the children with diarrheal attack in previous two weeks of the studies were treated by home remedies, taking to traditional healers and for one fourth of them no treatment was given. Research has shown that a wide range of culturally defined action in response to diarrhea and several actions may be taken at the same time (5). Possible actions are; delayed or no action, changing feeding pattern, changing the type or amount of fluid given, giving traditional home remedies, administering drug from drug store or other sources and consulting traditional or religious healer, and doctors in public clinic or private practice. In short we can say that, in many cultures the perceived causes of diarrhea determines how the episodes are managed (5).

Additionally all societies have health care systems beliefs, customs, specialties and techniques aimed at ensuing health and preventing, diagnosing and curing illness. A society illness causation theory is important for treatment (12). This indicates that different ethnic groups and cultures recognized different illness, symptoms and causes and have developed different health-care systems and treatment strategies (13).

Most perceived signs and symptoms of childhood diarrheal disease severity by mothers were; Child weakness, child weakness with vomiting and diarrhea continued for long duration (72%, 51%and 66% respectively). But, the important signs of dehydration (water and electrolyte losses) the sunken fontanel and losses of turgidity of the skin were not identified by mothers as signs and symptoms of severity for childhood diarrhea. They perceived that sunken fontanel is caused by uvulities (65.4%) and some of them perceived it as it is not problem and that it is nature. And they managed it by applying butter and garlic on it and by practicing uvelectomy. Most important signs to decide about severity of diarrhea by a group of mothers in central high land of Mexico were, change in child behavior which interfered with households activities, such crying or restlessness and signs associated with eyes, and change in frequency of the stool. And symptoms which caused the family to seek outside help include vomiting, loss of appetite and long duration of diarrhea (5).

Many cultures recognize a childhood illness characterized by a sunken fontanel, dry skin and weakness. Although these are signs of dehydration the relationship between them and fluid loss is not recognized. The sunken fontanel is seen as the primary problem and the diarrhea is believed to be caused by it. Interventions may be physical actions to raise the fontanel (such as pushing up on the roof of the mouth) (5). Understanding local beliefs about diarrhea in the context of other childhood disease helps to identify that are associated with loose or watery stool but that are not considered as diarrhea. Since this illness is not considered a type of diarrhea, it may not be identified unless the researcher inquires about childhood illness in general (5). Comparing diarrhea with other perceived childhood illness not considered as diarrhea by cultural beliefs can lead to a better understanding of diarrheal illness and their management.

The main actions taken by mothers when they perceived childhood diarrhea as sever were trying home remedies, using medications for wan-ijole, take to medical care and giving medication juices prepared from mixture of lemon, sugar and water .

In contrast, dehydration occurs when children lose more fluid through diarrhea than they are able to take in. It is more likely to occur when stool is very watery, frequent, or large and

when diarrhea is accompanied by vomiting. Dehydrated children may become less active and more irritable. They may increase thirst or, in sever or dangers diarrhea episodes include fever, bloody diarrhea, lose of appetite, diarrhea lasting longer than 14 days and sever under nutrition. Care givers/ mothers should be recognizing and responding to those causes of diarrhea, because should be evaluated and or treated by trained health care providers (5).

Finally, in-depth interview result revealed that households behavior on childhood diarrhea management practice influenced by community illness causation explanatory method. These were accepted by the family because gave them meaning full sense of cause identification with its defined solutions. It identified its etiology, predisposing factor, why it comes to child, its signs and symptoms and its danger if not treated. If we take illness causation explanation of diarrhea caused to child due to evil-eye, it explained as that all eyes of people in the community are not normal and small children starting of their few months are became beautiful and attractive to eyes of people. These situations lead them to enter easily into pupils with abnormal eyes, without consciousness of the problems causers. The caused misfortune leads to caused diarrhea. The type of diarrhea is watery and chichita and treated with traditional medicine treatment. For teething caused diarrhea the explanation given as it is a worm in the gum. It become white at the base of the gum and caused itching over it, for which the child biting his fingers. The childhood diarrhea caused due to teething is watery diarrheas. And diarrhea stopped as the moving worm taking out from the gum by incising the gum. Others explanations methods for ajee, wan-ijole and abdominal belly revealed these. This concept fits with lay explanatory model suggested by Kleinman (16).

7- Strength and limitation of the study

7.1. Strength of the study

1- Respondents were all mothers.

2- Use of quantitative and qualitative methods.

3- The study showed cultural context of childhood diarrheal management.

7.2. Limitations of the study

1-Traditional healers were not selected for in-depth interviews.

2-Knowledge of mothers on ORS usage was not assessed.

3-Modern health service utilization was not assessed

8- CONCLUSION AND RECOMMENDATION

8.1. Conclusion

1- Childhood diarrhea attack was high in Karayu community.

2- Perception of mothers/ households on childhood diarrhea was influenced by community beliefs on type identification and cause explanation

3- Taking action for childhood diarrheal management depends on mothers/ households types identification and they depends on their perception of causes to decided on management practices.

4- The culture / the community has explanatory methods on childhood diarrheal disease causation that are accepted, meaning full and give sense for them, for that, they believed and perceived it.

5- The way the community explain illness causation methods in childhood diarrhea influences the behavior of households on childhood diarrheal managements.

8.2. Recommendation

1- To get the desired behavioral change of households, on recommended treatment of childhood diarrheal disease, the educational massage must consistent with existing beliefs, uses familiar words and examples to explain new ideas.

2- Also studies needed on Cultural context of others childhood illness to identify community perception on types of diarrheas those believed by mothers as other primary disease of children.

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10-Annex I

A.A.U, Faculty of medicine, Department of community Health.

Questionnaire prepared to assess beliefs, attitudes and practice in childhood diarrheal disease management in kereyu community. (Used for qualitative study)

Ser.No_____

I.Guide line for interviewers

1. Greeting
2. Introduce your self
3. Explain the aim of the study for the respondent by saying that:-The reason why I came here is to ask you some question related to child health. The purpose of this interview is to have your perceived cause, types sign and symptoms of diarrhea and action you take for it. It helps to designing acceptable intervention of childhood diarrhea disease management and other problems with diarrhea in your community.
4. Check for the presence of less than five years of age and if there is no thank and go to the next household which has been selected.

I. Informed consent

Read the following paragraph for the selected mother /care giver

To conduct our study , I would like to ask you some questions which may take about 30 minutes .As your participation is very important to the out come of the study ,we kindly request you to give us your sincere and truthful answer. All the information that you and other respondents are going to provide us remains confidential and do not need to mention your name.

Are you willing to participate in the interview?

Yes,_____(continue the interview)

No,_____(Thank and stop)

Name_____Signature _____Date_____

(Signiture of the interviewr certifies that concent has been obtained verbally)Name of the supervisor _____Sign_____Date_____

Questionnaires

section 1:- General information

No	Questions and filters	Coding categories	skip to
11	Age of care giver /mother	< 19 years ------- 1 20 - 29 years -------- 2 30 -39 years---------- 3 40-49 years---------- 4 >50 years ---------- 5	
12	Age of the child	<6months ---------- 1 6 -11 months ---------- 2 12 -23 months ---------- 3 24 -59 months ---------- 4	
13	Educational status of caregiver	Illiterate ---------- 1 Literate ---------- - 2	
14	Religion of households	Christian ---------- 1 Muslim ---------- 2 Waqefata ---------- 3	
15	water used for drinking	River -------- 1 Pound ---------- 2 pipe ---------- 3	
16	Human excretal disposal method	open field deification---- 1 use latrine ---------- 2	
17	Waste disposal management	Dispose any where------ 1 dispose in pit hole ---- 2	

Section 2;- Diarrhea disease

No	Questions and filters	Coding categories	Skip to
21	Is diarrheal disease health problem of your community?	Yes 1 No 2	
22	Did your child attack with diarrhea in last two weeks (consider the child for whom care take interviewed)	Yes 1 No 2	
23	If the answer is 'yes' what action was taken by you	No action taken 1 Give home remedies 2 Taken to traditional healer 3 Restricting of food and water 4 Others 5	
24	What wordings you have used for loose stool of your child?	Gera yasa 1 wan ijoole (child things) 2 Dawa'oo (Amaarisee)Teething 3 I Ja (evil-eye) 4 Amoeba 5 Butuch 6 Others 7	

Section 3:- perceptions on types of diarrhea

No	Questions and filters	Coding categories	Skip to
31	What are the types of childhood diarrhea you can Identifies?	Yellow 1 Red 2 Green 3 Watery 4 Chichita 5 Teething (dawa'oo) 6 Others 7	
32	How you can identify?	using color of diarrhea 1 By child conditions 2 By its contents 3 By perceived cause 4 Others 5	
33	What is the use of identifying types of diarrhea?	To Decide on management 1 To identify the cause 2 Others 3	

Section 4;- perceptions on cause of childhood diarrhea

No	Questions and filters	Coding categories	Skip to
41	what are causes of childhood diarrhea that you know	Evil eye 1 Teething /Dawa'oo/ 2 If the child remains with out food for long hours 3 Eating contaminated food 4 Giving breast for the child before cooling the body when mother wait in hot weather 5 If the child play in hot 6 Others 7	
42	How you can identifies the cause of childhood diarrhea?	By the types of diarrhea 1 By the child conditions 2 By the color of diarrhea 3 By symptoms of diarrhea 4 others 5	
43	What is the use of knowing cause of child hood diarrhea?	To take action 1 To choice management possibilities 2 Others 3	
44	Can loose stool of your child with diarrhea cause diarrhea?	Yes 1 No 2	
45	If 'yes' for question number 44 which one?	Caused by the evil eye 1 caused by teething 2 Caused by contaminated water and food 3 Caused by Amoeba 4 Others 5	
46	What is the causes of sunken fontanel	Tonsillitis 1 Watery diarrhea 2 Fever 3 If the child caught with child thing (wan ijoole) 4 Others 5	

Sections 5;- perceived signs and symptoms of severity

No	Questions and filters	Coding categories	Skip to
51	How severity of childhood diarrhea identified	By the child condition 1 By combined symptoms of the disease (vomiting) 2 If the child refused to eat 3 By types of diarrhea perceived 4 By causes of diarrhea perceived 5 If the dearrhea continue for long 6 If there is sunken eye 7 Others 8	
52	What are signs and symptoms of severity you can identifies for child with diarrhea disease	In creased frequency and duration of diarrhea 1 Presence of fever 2 Bloody diarrhea 3 Sunken fontanel 4 Change of child behavior 5 Weakness of the child with diarrhea 6 Others 7	
53	If you see sign of severity on your child with diarrhea what is your action?	Trying home remedies 1 Taking to elder care givers to checked by them---------- 2 Take to religion leader 3 Take to medical care 4 Take to traditional healer 5 Using medication of child things /waan ijool 6 Drinking medication prepared from lemon sugar and water 7 Others 8	

Section 6:- Actions taken by care givers and mismatches with medical care

No	Questions and filters	coding categories	Skip to
61	How you can decide on action you take for managing your child with diarrhea?	Depending on types of diarrhea 1 Depending on causes of diarrhea 2 By its signs and symptoms of severity 3 By wording of the lose stool 4 Others 5	
62	What are actions you take for childhood diarrhea types and causes you identified?	Milk teeth extraction for teething 1 Traditinal medicines for evil eye 2 Abdominal massage for diarrhea Caused by falling 3 Take to religious leaders 4 Stop feeding 5 Take to modern medicine 6 Others 7	
63	Is there childhood diarrhea that can not treated by modern medicine?	yes 1 No 2	
64	If the answer on question 63 is 'yes' which one?	Teething 1 Evil eye 2 Abdominal belly 3 Wan ijoole (child thing) 4 Others 5	
65	What action you take for sunken fontanel	Applying herbal medicine on fontanel 1 Applying butter on it 2 Doing tonsillectomy 3 Giving herbal medicine by month in liquid form 4 Put smoky tar from tacked root on fontanel 5 Putting garlic on fontanel 6 Others 7	

UNIVARSTII ADDIS ABABAA, FAAKAALTII MEDISINI, DIPARTMEENTII PAABILIK HEELIZII

Gaafiwan Deebfi Qophaawan (Questionnaire) kan Amanteefii ilaalicha umanii Karrayu waldhaanisa Alibaatii daa'manii irratii qabu barachufii ykn qorachufii qoophaayee.

Lakkofisa Walitii aanu:----------

I- Qajeelfama namoota gaafii qophayee dhiyeesudhaani deebii guttaniifii:-

1- Hunda-duraa nagaa kabajaa gaafachu

2-Iti aansudhaan offi ibisu. Maqqaa kee, eesaa akka dhuftee, eenyuu waliin hoojii kana akka hojeetu, (Univarstii Addis-Ababaa, Dipaartimeenitii Paablik Heelzii jalatii akka hojeetu), kanaafu leeniin guyyota lamaafiakka sii keenamee ibisufii.

3- Kaayoo qoranaa kanaa haadha da'imaatiifi ykn gudistudhafi akka asii gaditi argamu kanati ibisufii:-

Sababiin ani iddo kanati argamu danda'e gaafiwan fayaa ijooleetin wal-qabatee isin gaafachufii. Kaayoon gaafifii deebii taasifinu kanaatisi Amantaa keesani biifoota albaatii da'imani adaani baafachufi iti fayadamitan, sababii albaatiin itti dhufu mallattolee dhibeen alibaatii itti hammaachu isaa agarisiisaniifi taricaafii dhibee kana wal-dhaanufii fudhatan isin irraa barufii. Kunsi, ittisa dhibee kanatifi rakkoolee dhibichaan umamu danda'an akka uummata birratti fudhatama arigatufi jeechoota uummaata galun akkekame akka karroorifamu kan gargaran ta'a.

4. Ijooleen wagaa 5 gadi akka jiraniifi hinjiirree qulquleefadhu. Yoo kan hinjiire ta'e galateefadhu gara mana itti aanee jiiru deemi. Yoo da'imn jiiratee akka asi gadi kanati itti fufi.

i. ibsii gahaan eega keename bodee mallattoo gafataamufi tolee jeechuu isan muli'isu gafachuu.

ii.Jeecha asi gadi jiiru kana haadhaa da’imani ykn gudifituu da’iman gaafiifi filatamanifi dubisufi.

Qoorumsa kenyaa adeemsisudhafi gaafiwwaan muraasa daqiiqaa 30 fudhachuu danda’u oddo isin /sii gaafadheeyini jaaladha. Hirimanan keesani/ kee bu’aa qoorumsa kanattiffaayidaa baayee qaba. Kanaafu , jaalatani /feedhidhan deebii keesani mi’aawafii kan dhugaa ta’ee akka nuf keenu dandeesani gaafii kon kan jaalalaa isinifi dhiyeesa.Deebiin isin irra arganeeffi kan namoota birro irrayis arganu nama sadafaatifi dabarsinee hin keeninu/ ni eegamu. Kanaafiisii waadaa gala.Maqaan keesaniis waraqqaa ittin isin gaafanu irrat hin barreefamu. Fedhi keesan /kee yoo ta’ee malee eenyumaan keesan akka beekkamu hin ta’u.

Gaafiifi deebii kan irrati hirmaachuufi toolee nu jeetu? Deebiin

Eyeen yoo ta’ee_____ Gaafiifi deebii itti fufii.

Hin fudhadhu yoo jeedhan _____ Galateefadhu gara mana itti aanuti deemi.

Maqqaa _____ Mallaattoo_____ Guyyaa_____ (Mallattoon abba gaafi gafatee deebii gutu mallattoo afaanin goodhamee kan nama deebii keenu muli’dhisa)

Maqqaa To’ataa _____ Mallaattoo Gyyaa_____

Gaafiiwwaan

Kuta 1:- Odeefannoo walgalaa

Lak	Gaafii	Koodii	Lak.irra darbu
11	Umrii haadhaa / gudifiitu da'imaa	Wagaa 19 gadi ---- 1 Wagaa 20 - 29 -------- 2 Wagaa 30 -39 ---------- 3 Wagaa 40-49 ---------- 4 Wagaa 50 ol---------- 5	
12	Umrii da'ima	Ji'a 6 gadi ---------- 1 Ji'a 6 -11 ---------- 2 Ji'a 12 -23 ---------- 3 Ji'a 24 -59 ---------- 4	
13	Sadarka barumisaa Kan haadhaa ykn kununsitu	Kan hinbaranee---------- 1 Kan baratee--- ---------- - 2	
14	Amantaa	Kiirisitaana ---------- 1 Musiliima ---------- 2 Waaqeefataa ---------- 3	
15	Bishaan dhugaati essaa arigatu?	Laga irra ---- -------- 1 Harro-------- ---------- 2 Ujumoo--- ---------- 3	
16	Akkataa qabiinsa teesumafi fiincaanii	Badheeti bahu---------- 1 Mana fiincaaniti fayyadamu 2	
17	Akkataa qabiinsa haaraa	Badheeti gattu---------- 1 Boloo keesati kussu ---------- 2	

Kuta 2;- Dhibee alibaati

Lak	Gaafii	Koodii	Irra darbu
21	Dhibeen albaati rakkoo fayyaa ummata keesanitii?	Eyeen 1 Miti 2	
22	Mucaan kee kun tooriban lamaa asi dhibee albaatitin qabame beekaa?	Eyeen 1 Hin qabamnee 2	Gara 24 darbi
23	Deebiin Eyen yoo ta'ee maltuu godhameefi?	Homaa hin godhamneefi 1 Qoorichaa manati qopha'ee keenineefi---------- 2 Nama qoorichaa godhu birraan dhaqine---------- 3 Bishaanif nyaata dhoowinee--------- 4 Kan birro ---------- 5	
24	Mogaafini/maqqaan isin albaat da'imanitiif fayyadamtan?	Garaa kasaa------ 1 wan ijoole ----------2 Dawa'oo (Amaarisee)---------- 3 Ija nama----------4 Ameba ----------5 Buxuuca ---------- 6 Kan birro ----------7	

Kuta 3:- Hubatinsa biffota/goosoota albaati da’iman

Lak	Gaafii	Koodii	Irra darbu
31	Goosoon/bifini albaati da’imani isin adaan baafatan beektan kam fa’aa?	Keelloo 1 Diimaa 2 Magariisa 3 Bishaan/ Qalaa 4 dawa'oo 5 Ciiciitaa 6 Kan birro 7	
32	Akkamti adaan bafachuu dandeesu?	Bifa albaatitin 1 Mallattoolee da’iman irrati mulatuni2 Waan offiikeesaa qabun 3 Hubanaa sababii dhibeen kun umame irrat hunda’udhan---------- 4 Kna birro------ 5	
33	Bifa/goosa albaati adaan baafachuun maalfi fayyada?	Waldhansi akka goodhamufi murteesufi---------- 1 Sababii dhibee kana beekkufi 2 Kan birro------ 3	

Kuta 4;- Hubatinisa sababii dhibee albaati itti dhufu danda'u irrat qaban

Lak	Gaafii	Koodii	Irra darbu
41	Sababiin albaatin da'imanti dhufu kan isin beekitan kami fa'aa?	Ija nama---------- 1 Dawa'oo ----------2 Da'imn nyaata mallee yeroo dheerafi yoo turee----------3 Nyaata sirii hin taane irra---------- 4 Harima oddo nafa hin qabanefatin yoo hoosisan----------5 Da'imn aduu kesa yoo taphatee----------6 Kan biro--------- 7	
42	Sababii isaa maliin adaan baafachuu dandeesu?	Bifa/goosa albaatitin---------- 1 Mallaattoo da'imn mulidhisun 2 Qallama albaatitiin_____ 3 Mallaattoo albaatin mulidhisun 4 Kan birro-------- 5	
43	Sababii dhibee albaati da'imani beekun mal fayyaada ?	Tarikaanfii fudhachuufi 1 Waldhaansa goodhamufi filachuufi----- 2 Kan birro----------3	
44	Albaatin da'iman tokko irra tokkoti darbaa?	Eyeen 1 Hin darbuu 2	Gara 406 darbi
45	Deebiin gaafii eyeen yoo ta'ee isa kami ini?	Ija nama yoo ta'ee----------1 Dawa'oo yoo ta'ee----------2 Kan nyaata sirii taanen yoo ta'ee-------- 3 Ameba yoo ta'ee---------- 4 Kan birro----------5	
46	Sababiin samu ijoolee itti bolladhatu mal ini?	Huubin yoo butee 1 Albaati bishaan ta'ee yoo albaasee 2 Nafa yoo ho'isee 3 Wani-ijoolee yoo qabee---------- 4 Kan birro ---------- 5	

Kuta 5;- Hubatinisa mallaattoolee dhibeen albaati da'iman irrat hamaachu isa ittin beekan

Lak.	Gaafii	Koodii	Irra duabu
51	Dibeen albaati da'ima kan hubee ta'u isa akkamiti adaan baafachuu dandeesu?	Mallaattoo da'imni mulidhisun 1 Mallaattoo makkaa ta'anin / yoo hoqiisiisu dabalatee 2 Nyaata didinisa da'iman 3 Hubatinisa biffoota albaati qabnun 4 Hubatinisa sababii ummama albaati qabnuni 5 Albaatini yeeroo dherafi yoo irra turee 6 Kan birro 7	
52	Mallattoolee dhibeen albaati da'iman irrat hammachuu isa mulidhisan kan isin adaan bafachuu dandeesan kam fa'aa?	Dadafiifii dheerina da'iman itti gadi tesisu 1 Yoo nafa ho'isiseefi hoqisisee 2 Dhigaa yoo gadi tesisee 3 Samun yoo bollofite 4 Ammali da'ima yoo jiijaramee 5 Da'imn yoo dadhabee 6 Kan birroo 7	
53	Yoo mallaattoo da'iman albaatidhan hubamani adaan bafatan /beektan tarkaafiin keesan mali?	Qooricha manati qophaa'ee keeninafi 1 Mangudoon akka laalan gona 2 Bakka itti bulutii geesiina 3 Hakiimii geesiina 4 Nama qooricha beeku birran dhaqina 5 Qoorichaa waan ijoolee goonafi 6 Loomiifi sukara bishaanin keeninafi 7 Kan birro 8	

kuta 6:- Tarkkanifi haadhoon da'imani fudhatan

Lak	Gaafii	Koodii	Irra darbu
61	Tarkkanfii waldhaansa da'ima keesan albaatin qabamefi akkamit murteesu dandechuu?	Bifa/goosa albaati irrat hunda'udhan 1 Sababii dhibiichii ummamee irrat hunda'udhan 2 Mallaattoolee hubinisa irrat hunda'udhan 3 Mogaasa /maqqaa irrat huna'udhan 4 Kan birro 5	
62	Tarkkafoni isin albaati da'iman goosa fi itti ummame eegaa adaan bafatan boodaa mal fa'aa?	Dawo'oo buqiisu 1 Ija nama yoo ta'ee qooricha adaatin waldhanu 2 Bu'aa yoo ta'ee dhidhibsisu 3 Idoo itti bulanti geesudhan eebisisu 4 Nyaata irra dhabu 5 Mana hakiimaa geesu 6 Kan biro 7	
63	Albaatiin da'iman kan haakiman hin fayan jeetan yaadan jiru?	Eyeen 1 Hinjiran 2	
64	Yoo deebin eyeen ta'ee isa kami?	Dawa'oo 1 Ija-nama 2 Bu'a 3 Wan ijoole 4 Kan birro 5	
65	Tarkaafiin samun yoo bollofitee fudhatan mali?	Qoorichaa baala irra qopha'ee samu irrati dhobu 1 Dhadhaa samu irra ka'u 2 Huuba fusisu 3 Qoorichaa baala irra qopha'ee obasu 4 Qaqaa mana dhadhaa waliin samu irrati dhobu 5 Qulubii adii samu irrati dhobu 6 Kan birro 7	

Annex 2

In-depth interview guideline and informed consent

I. Instruction for in depth interview

1. Greeting by saying :

Good morning /afternoon .I am thanking you, for waiting me by responding to our passed message.

2. Introduce your self

My name is _____ I came from AAU, Faculty of medicine, and Department of community health.

3. Explain the aim of the study by saying that: - The reason I came here is to interview you on child hood diarrhea disease .The aim of the interview is to share your thought, experience opinion that you got from past parent and you developed through practicing of childhood diarrhea management .This helps to designing acceptable intervention by the community to decrease childhood diarrhea problems and other continuing researches.

I. Verbal informed consent

Read the following as it is:-

After I and you share some of our experiences, I start to interview you on your experiences of childhood diarrhea disease management. The interview question is simply to guide our discussion and to go with the subjects .I take more time depending on generating of new ideas by our discussion. Our relation is in friendly way and I am new for the information you would give me .I promise for you that your name should never used in summery materials and data are kept not to passed to the third person .Information's that you provide are remain confidential .You have the right to stop the discussion when ever you want to stop.

Would you be willing to participate in the discussion?

If yes, proceed

If no, Thank and stop discussion

Signature_____

(Signature of the moderator certifies that consent has been obtained verbally)

QUESTION PREPARED TO GUIDING IN-DEPTH INTERVIEW

How your community managed their child with diarrheal disease? And probing questions depending on informant responses to get in-depth understanding of realities concerning childhood diarrhea in the community