ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCES
SCHOOL OF PUBLIC HEALTH

ASSEESSMENT OF MOTHERS'/CARETAKERS MODERN HEALTH CARE SEEKING BEHAVIOR FOR COMMON CHILDHOOD ILLNESSES IN JELDU DISTRICT, WEST SHEWA ZONE

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Acronyms

AIDS	Acquired Immunodeficiency Syndrome
ARI	Acute Respiratory Infection
EDHS	Ethiopian Demographic and Health Survey
FMOH	Federal Ministry of Health
HIV	Human Immunodeficiency Virus
HSDP	Health Sector Development Program
IMCI	Integrated Management of Childhood Illnesses
MDG	Millennium Developmental Goal
ORS	Oral Rehydration Salt
UNICEF	United Nation Children's Fund
WHO	World Health Organization

ABSTRACT

Background: Even though health care seeking interventions have the potential to substantially reduce child mortality from easily preventable and treatable diseases, large number of children die without appropriate treatment and ever reaching the health facility and due to delays in seeking care in developing countries including Ethiopia.

Objective: The objective of this study was to assess mothers/caretakers modern health care seeking behavior for common childhood illnesses and factors affecting it in Jeldu District.

Methods: A community-based cross-sectional study was conducted in Jeldu District of West Shewa Zone, Oromia Regional State, from January 2011 to February 2011. A total of 433mothers/caretakers with under- five children who experienced diseases within six weeks before the survey were selected for this study. The study subjects were allocated to the selected kebeles proportionally to their estimated number of households and data were collected by using structured, pre-tested and interviewer administered questionnaire. The data entry and clearance were carried out using Epi Info version 3.5.1 statistical software package, whereas SPSS version 16 statistical software package was used for analysis.

Results: A total of 422 mothers/caretakers were enrolled in the study giving an overall response rate of 97.5%. Of the total sick children reported, care was sought from health facilities for 315(74.6%). Care was sought first from health facilities for only 44%, while 30.6% sought health facilities after sought care from other sources. Marital status of the mothers (AOR=2.81; 95%CI: 1.54, 5.13), number of symptoms experienced by the child (AOR=1.98; 95%CI: 1.20, 3.36) and perceived severity of the illness (AOR=3.75; 95%CI: 2.24, 6.28) were identified as independent predictors of health care seeking practices from health facilities. Lack of money (40.2%) and perception that the illness was not serious (27.1%) were the main reasons given for failure to seek care from health facilities.

Conclusion: Health care seeking practices of mothers/caretakers for common childhood illnesses were delayed (86.3%) and maternal/caretakers decisions to seek care from health facilities were widely influenced by worsening of the illnesses (61.0%). Thus, significant behavioral change effort should be taken to enhance the health care seeking behavior of the mothers/caretakers in the locality.

1. INTRODUCTION

1.1 Background

Common childhood diseases are diseases that are responsible for considerable child mortality, morbidity and disability in the world. Acute Respiratory Infections, diarrheal disease, malaria and measles constitute diseases that exert major impact on the health of under-five children (1-4).

Globally, the total number of under-five deaths declined from 12.5 million in 1990 to 8.8 million in 2008(5). Despite the fact that most child deaths are preventable or treatable, many countries still have unacceptably high levels of under-five mortality. The highest rates of this mortality continue to be found in sub-Saharan Africa (144 deaths per 1,000 live births). All 34 countries with under-five mortality rates exceeding 100 per 1,000 live births in 2008 were in sub-Saharan Africa, except Afghanistan. Moreover, of the 8.8 million deaths in children under five worldwide, half of the deaths were contributed by sub-Saharan Africa. Three diseases: pneumonia, diarrheal diseases and malaria accounted for 41 percent of all deaths in children under five worldwide(5, 6).

In Ethiopia, child mortality rates are among the highest in the world(7) . Even though absolute reductions of more than 100 per 1,000 live births have seen since 1990-2008, Ethiopia is among the countries with under-five mortality rates exceeding 100 per 1,000 live births, 109 per 1,000 live births in 2008(6). Acute respiratory infections, malaria and diarrheal diseases are the major causes of both illness and death(7, 8).

The health of the children is strongly dependant on maternal health care seeking behavior(9). In fact, health care-seeking behavior reduce child deaths and complications due to ill health(10). Thus, enhancing early and appropriate health care seeking intervention for sick children reduce deaths from easily treatable diseases(11).

1.2 Statement of the problem

Child deaths are falling, but not quickly enough to reach the target. This problem is prominent among the developing regions, particularly in Sub-Saharan Africa and Southern Asia(5). A large proportion of these deaths are from low-cost preventable and treatable diseases: acute respiratory infections, diarrheal diseases and malaria(3, 12). Most of these lives could have been saved by low-cost/affordable treatment measures, including antibiotics for acute respiratory infections, oral rehydration for diarrheal diseases and the use of appropriate drugs for malaria, however, large number of children die without appropriate treatment and ever reaching the health facility and due to delays in seeking care in developing countries (12).

In Ethiopia, care seeking behavior is poor and only a small proportion of children receive appropriate treatment(7). Nationally, only 19% of under five children with symptom of ARI, 18% of with fever and 22% of with diarrhea were taken to a health facility or provider in 2005(13). Seeking appropriate health care for common childhood illnesses were low and delayed as well(14, 15). Indeed self care and resorting to traditional healer during illnesses were commonly practiced in rural Ethiopia(16, 17).

Despite some studies in some parts of Ethiopia about mothers/caretakers health care seeking behavior for common childhood illnesses, still there is information gap showing health care seeking behavior for common childhood illnesses including in Jeldu District.

1.3 Rationale of the study

Information about family's health care seeking behavior for common childhood illnesses is very important to design appropriate intervention in areas where under-five child mortality rate is high to reduce child deaths from easily preventable and treatable diseases. So, this study aimed to assess modern health care seeking behavior of mothers/caretakers for common childhood illnesses and factors affecting it in Jeldu District. The finding of this study is useful for the planners to design appropriate interventions for the improvement of child health in the area.

2. LITERATURE REVIEW

2.1 Common childhood illnesses

Common childhood illnesses are dominating the causes of morbidity and mortality among children globally(18). About 8.8 million children aged under 5 years died in 2008 and 33% of these deaths were due to two diseases: pneumonia and diarrhea. Diarrhea remains the second to pneumonia as the leading cause of these deaths among children under five globally(5). Nearly one in every five child deaths around 1·5 million a year is due to diarrhea, which kills more children than AIDS, malaria, and measles combined (19, 20).

In most countries, rates of mortality among children continue to decline, but large inequalities between poor and better-off children exist both between and within countries. Nearly half of global under-5 deaths are attributable to pneumonia, diarrheal diseases, malaria and measles. These conditions disproportionately affect the poor. Poor or delayed care-seeking has been identified as a contributor in up to 70% of child deaths (12, 18).

2.2 Pattern of and Factors affecting healthcare-seeking behaviour

Improving healthcare-seeking behaviour for childhood illnesses could contribute in reducing a large number of child morbidity and mortality (10). Despite the existence and even frequent use of health facilities, there were delay in seeking modern care for infants presented with symptoms of acute respiratory infection, fever and diarrhea in rural Malawi. Traditional healers were commonly seen first when children became ill(21).

A community based survey conducted in the Lagos Island Local Government Area of Nigeria in 2004 identified that, despite the common childhood illnesses targeted by the National Integrated Management of Childhood Illness (IMCI) were prevalent, poor maternal response for these illnesses could contribute to complicated outcome (22). According to this study, of 86.1% children who had symptoms suggestive of malaria, acute respiratory infections, diarrhea and measles; care was sought from health facilities at the onset of symptoms for 65.7%, while 34.3% were treated at home. Of those who were taken to health facilities for care, 8.2% were taken for care at the onset of illness, while the others were taken for care after an attempt of self-treatment

(68.6%), use of traditional medicines (12.5%) and provision of traditional home care (10.7%). Only 23.2% of the children were taken for care within 24 hours of perceived onset of the illness (22).

Another survey done among rural Guatemalan mothers showed that, more help and treatment advice were sought from older women in the family when their children presented with common childhood symptoms such as diarrhea, fever, and cough(23). Traditional healers were hardly consulted (range: 0%-3%). In the case of self-treatment, women predominantly relied on traditional medicine: around 80% in diarrhea and fever, and above 50% in cough. Herbs and traditional external remedies were little used, except in cough (27% herbs) and none of the mothers reported ORS as home treatment for diarrhea(23).

In Ethiopia, mothers' health care seeking behavior for common child hood illness is poor as demonstrated by different studies. There was also urban and rural difference in health care seeking behavior (7, 13-15).

A community based study conducted in south west Ethiopia reported that, mothers' health care seeking behavior for infants at the various levels of care were 46.5%, 42.7%, 48.2% and 41.6% for diarrhea, cough, fever, and other illnesses respectively, which means more than half of mothers with infants experienced these illnesses didn't seek care from health institutions. According to this study, more than a quarter of sick infants didn't get any kind of help at home, traditional or health institutions(24). In addition, a survey conducted in Liben District, Borena Zone reported that, only 27% and 31% of the caregivers of children with possible pneumonia and malaria sought care from health facilities respectively(15).

Furthermore, a cross- sectional study conducted in Derra District, North Shewa Zone, in 2007 reported that there was low health care seeking practices among mothers for childhood illnesses(14). According to this study, the overall health care seeking practices for sick under-five children was 56.3% and worsening of illnesses was the main reason reported for visiting health facilities. Seeking appropriate health care was not only low, but also delayed. Of the total sick children taken to health facilities, care was sought on the first day only for 13.6%(14).

Another survey conducted in Adami Tulu District, south-central Ethiopia also reported that, only 28% of the febrile children received any form of treatment within 24 hour of the onset of illness(25).

The practice of appropriate health care seeking has a great potential to reduce the occurrence of severe and life-threatening childhood illnesses. However, varieties of factors have been identified as the leading causes of poor utilization of health care services. Poor socio-economic status, lack of physical accessibility, low literacy level of the mothers, large family size, number of symptoms, previous experience of child death, and perceived severity of illness were the predictors of care seeking behavior (10, 14, 26, 27).

A survey of the Nairobi Urban Demographic Surveillance System (NUDSS) in 2004 on 2-week child morbidity, illness symptoms, perceived illness severity and use of modern health services reported that, of the children who were reported to have been sick, medical care of some sort was sought for 60.5%(11). Health care seeking was most common for sick children in the youngest age group (0-11 months). Caretakers sought medical care more frequently for diarrhea symptoms than for coughing and even more so when the diarrhea was associated with fever. Perception of illness severity (OR=4.02; 95%CI: 2.63, 6.12) was strongly associated with health care seeking behavior. Lack of money (49.6%) and a perception that the illness was not serious (28.1%) were the main reasons given for failure to seek care from health facilities(11).

Another cross-sectional study conducted in a rural part of western Kenya in 1997 identified that, mothers' health seeking behavior was influenced by proximity to the health facility, lack of income, convenience and lack of adequate services at the health facility(9).

3. OBJECTIVES

3.1 General objective

- To assess modern health care seeking behaviour of mothers/caretakers for common childhood illnesses and factors affecting it in Jeldu District, West Shewa Zone

3.2 Specific objectives

- To assess magnitude of mothers'/caretakers modern health care seeking behaviour for common childhood illnesses
- To identify factors affecting mothers'/caretakers modern health care seeking behaviour for common childhood illnesses

4. METHODOLOGY

4.1 Study area and period

The study was conducted in Jeldu District of West Shewa Zone in Oromia Regional State from January 2011 to February 2011. Jeldu is one of the Districts in the Oromia Region bordered on the south by Dendi, on the southwest by Ambo, on the north by Gindeberet, on the northeast by Metarobi, and on the southeast by Ejere District.

The District has three urban and thirty eight rural kebeles. Gojo Town is the capital of Jeldu District; located 110 kilometres (k.ms) West of Addis Ababa. According to information obtained from the national population census of 2007, the total population of the District was 202, 655 of which 14, 377 and 188, 277 were urban and rural dwellers respectively. Regarding health facility, the District has 5 health centres, 14 private clinics and 38 health posts which were functional during the study period according to the information obtained from the Woreda Health Office.

4.2 Study Design

A community based quantitative cross-sectional study

4.3 Source of population

The sources of the population were caretakers living in Jeldu District, who have under-five children during the study period.

4.4 Study population

The study populations were mothers who have under-five children experienced disease within the six weeks before survey.

4.5 Study Subjects

Study subjects were mothers who have under-five children experienced disease within the six weeks before survey and selected for interview from selected kebeles.

4.6 Sample size determination

The sample size was determined by using single population proportion of mothers who sought care from health institution for under-five child with acute respiratory infection, fever and diarrhoea (EDHS 2005). To obtain the sample size, percentage of mothers who sought care from health institution for diarrhoea (22%) was used.

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

n= is the desired sample size

P=percentage of mothers who sought care from health institution for diarrhoea

Significance level (α) =5%

Zα/2=1.96 at 95% CI

d (marginal error) =4%

Non-response rate =5 %

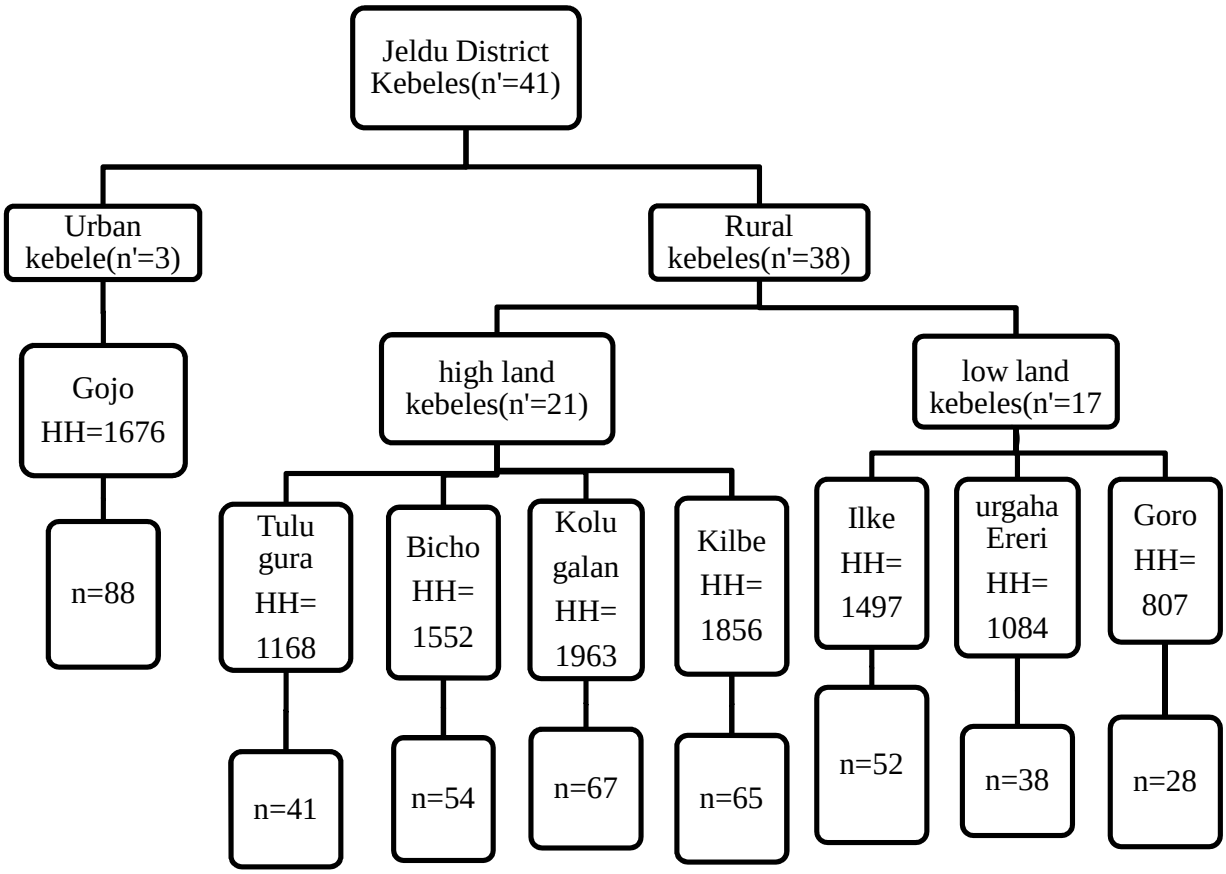
Based on the above calculation the sample size was =412

Then the total sample size was = 412 +21=433

4.7 Sampling procedure

One urban and seven rural kebeles were selected according to the following sampling procedure. First the kebeles were stratified by residence (urban and rural). Then, the rural kebeles were stratified based on their topography; high land and low land. From the urban kebeles, Gojo 01 was selected purposively by considering estimated number of the households and from the total rural kebeles, 7 were selected by lottery method from the strata (four from high land, three from low land) and the sample size was distributed across them with probability proportional to the size of the estimated number of households in each kebele. One fifth (88) of the study subjects were selected from urban while the rest four fifth (345) were from rural kebeles. The eligible mothers/caretakers were selected from all selected kebeles by searching every other household. When the selected house hold was not eligible, the subsequent households were asked until eligible mothers/caretakers were found. In the cases of more than one index mother of under-five children per household, one mother was selected by lottery method.

When there were more than one sick child per mother, mothers were asked about the morbidity experiences of the recently sick child within the six weeks before the survey to examine their health care seeking behaviour for common childhood illnesses.



HH= estimated number of households of the kebeles

n= number of study subjects selected from respective kebeles

n'= number of kebeles

Figure 1: Schematic presentation of sampling procedure in Jeldu District, January 2011.

4.8 Study Variables

Independent variables

- Age of mothers
- Marital status
- Ethnicity
- Religion
- Family size
- Average monthly income
- Educational status of mothers
- Mother's occupation
- Educational status of husband
- Residences
- Experience of child death before
- Sex of the child
- Age of the child
- Perceived severity
- Availability of health facilities
- Distance of health facilities

Dependent variable

Modern health care seeking behaviour

4.9 Inclusion criteria

Those who have under-five children experienced disease within the six weeks before the survey.

4.10 Exclusion criteria

Mothers who don’t communicate due to different illnesses and who have hearing problem.

If the immediate caretakers were not at home on the data collection day.

4.11 Data collection

Data were collected on socio-demographic characteristics of the mothers/caretakers, history of childhood illnesses and mothers/caretakers health care seeking behavior for common childhood illnesses. The information about common childhood illnesses was collected by using the main suggestive symptoms of common childhood illnesses; cough accompanied by short or difficult breathing for ARI, diarrhea for diarrheal diseases and fever for febrile illnesses were used to assess mothers/caretakers care seeking behavior accordingly. A well-structured questionnaire was designed and used in this study. The questionnaires was prepared in English and translated to Afan Oromo (local language) and later on translated back to English.

The questionnaire was also pre- tested and standardized by the principal investigator, supervisors and data collectors before starting data collection. Based on the stated sampling technique, study subjects were selected for the interview and Nine trained data collectors (10th grade and above) collected the data by moving house to house. Two Supervisors followed the data collectors and the necessary correction was made when needed.

4.12 Data quality control

The data collectors who are fluent at local language/Afan Oromo and who know the culture of that community were recruited. Intensive training was given for the data collectors and supervisors on how to complete the questionnaire. To avoid ambiguity and ensure reliability of data, the questionnaire was pre- tested among twenty seven mothers/caretakers with similar socio-demographic background who are not part of the study. After pre-testing, the necessary modifications/ standardization were made in the questionnaire. The completeness of the questionnaire was checked and the pre-coded data entered to a computer, cleaned and validated using Epi-info software package version 3.5.1.

4.13 Data analysis

Data entry and cleaning were carried out by Epi Info statistical software package version 3.5.1and then exported to SPSS version 16 statistical software package for analysis. Frequencies and proportions were used for the descriptive analysis of the data and its results were presented by tables and graphs. Bivariate analysis was also performed to look at the association between the independent variables and modern health care seeking behavior for childhood illnesses. Crude odd ratios with 95% confidence intervals corresponding to variables were reported to see whether the association exists or not. To determine the independent predictors of modern health care seeking behavior, multivariate logistic regression analysis was employed and adjusted odds ratios with the 95% confidence intervals corresponding to variables included in a logistic model were calculated.

4.14 Operational definition

Modern health care seeking behaviour: is care sought from health institutions; hospitals, health centres, private clinics and health posts.

Common childhood illnesses: in this study common childhood illnesses are acute respiratory infections, diarrheal diseases and febrile illnesses.

Acute respiratory infection: is cough accompanied by short or difficult breathing at any time within the six weeks before the survey for less than two weeks reported by mothers/caretakers.

Difficult breathing: is any unusual pattern of breathing (breathing is “fast” or “noisy” or “interrupted”) of the sick children described by mothers/caretakers.

Diarrhoea: if the mothers/caretakers described their sick children had loose or watery stools than normal within the six weeks before the survey.

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Fever: If history of hot body than normal reported by mothers/caretakers for any sick child within the six weeks before the survey.

Perceived severity: the illness considered as severe if the caretakers reported their sick children get weaker with time, unable to feed and drink.

Appropriate care: is care sought first from health facilities (public and private)/ qualified health professionals.

Inappropriate care*:* Are types of care such as purchasing medicines from pharmacy, home remedies, religious areas, holy water and traditional healers.

Prompt care: care that was sought from health facilities within 24 hours from the recognition of the illness.

Delay: care that was sought from health facilities after one day (24hours)

High land: is a locally classified as Dega and Woinadega

Low land: is a locally classified as Kolla

4.15 Ethical consideration

The proposal was ethically reviewed and approved by the Research and Ethics Committee of School of Public Health, Addis Ababa University.

The letter of support was obtained from School of Public Health and submitted to Jeldu District Administration and Health Office. Informed consent was obtained from all mothers/caretakers who were involved in the study before the interview and the information given was kept confidential throughout the data collection.

4.16 Plan for dissemination of Results

The final result of the study will be submitted to School of Graduate Studies of Addis Ababa University, College Health Sciences, School of Public Health as partial fulfillment of a master degree in Public Health. It also submitted to Oromia Regional Health Bureau and Jeldu District Health office. Furthermore, Presentation of result will be carried out on workshop when needed.

5. RESULTS

Socio-demographic characteristics

A total of 422 mothers/caretakers were involved in this study giving an overall response rate of 97.5%. Of those, 88(20.9%) were from urban with the response rate 100 % and 334(79.1%) were from rural with 96.8% response rate.

The median age of mothers interviewed was 29 years, ranging from age 17 to 65years. Three hundred forty two (81.0%) of the mothers were currently married/cohabiting with their husbands and 80(19.0%) of the mothers were currently not married (never married, divorced and widowed) during the study period. Half of the respondents, 209(49.5%) were Protestant in religion followed by Orthodox 189(44.8%) and Wakefata 24(5.7%), and almost all respondents, 417(98.8%) were from Oromo ethnic group.

Regarding their educational status, majority of the mothers/caretakers were illiterate 275(65.2%), followed by primary education131 (31%) and high school and higher 16 (3.8%). Of the total study subjects interviewed, 185(43.8%) reported the overall family size of their households were greater than five person while only 37(8.8%) of them reported an average monthly income of their households were greater than six hundred. Furthermore, 105(24.9%) of the mothers/caretakers had experienced child death before (Table1).

Table 1: Socio-demographic characteristics of mothers/caretakers (n=422) in Jeldu District, West Shewa Zone, Oromia Regional State, January 2011.

Variables	Frequency	Percent
Residence		
Urban	88	20.9
Rural	334	79.1
Mothers age in years		
<=30	273	64.7
>=31	149	35.3
Mothers' marital status		
Currently married	342	81
Currently not married	80	19
Religion		
Orthodox	189	44.8
Protestant	209	49.5
Wakefata	24	5.7
Ethnicity		
Oromo	417	98.8
Amhara	5	1.2
Mothers' occupation		
Farmer	286	67.8
Government employee	5	1.2
Merchant	55	13.0
House wife	29	6.9
Housemaid	10	2.4
Other	37	8.8
Educational status of mother		
Illiterate	275	65.2
Primary education	131	31.0
High school and higher	16	3.8
Educational status of husband(n=342)		
Illiterate	144	42.1
Primary education	145	42.4
High school and higher	53	15.5
Family size in house holds		
≤ 5 persons	237	56.2
≥ 6 persons	185	43.8
Average monthly income of the household		
≤600	385	91.2
≥601	37	8.8
Experience of child death before		
Yes	105	24.9
No	317	75.1

Child health-related information

Of the 422 sick children reported, 113(26.8%), 126(29.9%), 102(24.2%), 54(12.8%) and 27(6.4%) were in the age group of 0-11, 12-23, 24-35, 36-47 and 48-59 in months respectively. Of those males were the dominant in gender 247(58.5%) (Table2).

Table 2: Age categories and sex of the sick children in Jeldu District, West Shewa Zone, Oromia Regional State, January 2011.

Variables	Frequency	Percent
Age of child in months(n=422)		
<6	46	10.9
6-11	67	15.9
12-23	126	29.9
24-35	102	24.2
36-47	54	12.8
48-59	27	6.4
Sex of child(n=422)		
Male	247	58.5
Female	175	41.5

Of the total 422 children that had been ill with any disease in the six weeks preceding the survey, 112 (26.5%) experienced only one symptom, whereas 310(73.5%) experienced more than one symptom. Of those, 226(53.6%) were perceived as severe by the mothers/caretakers. Concerning particular symptoms experienced by the children, 288(68.2 %) experienced cough, 152(36.0%) suggestive symptom of ARI, 259 (61.4%) diarrhea and 295(69.9%) fever (Table3).

Table 3: Child health-related information in Jeldu District, West Shewa Zone, Oromia Regional State, January 2011.

Variables	Frequency	Percent
Number of symptom experienced by the children (n=422)		
One	112	26.5
More than one	310	73.5
Particular symptoms experienced by the children		
Cough	288*	68.2
Cough accompanied by short or difficult breathing for less than two weeks	152*	36.0
Diarrhea	259*	61.4
Fever	295*	69.9
Cough and diarrhea	172*	40.8
Cough and fever	223*	52.8
Diarrhea and fever	207*	49.1
Cough, diarrhea and fever	155*	36.7
Other symptoms	167*	39.6
Disease severe(n=422)		
Yes	226	53.6
No	196	46.4

**is the number of children experienced that particular symptom out of 422.*

Pattern of healthcare-seeking behavior

Of the 422 caretakers enrolled in this study, 361(85.5%) reported their preference sources of health care seeking for childhood illnesses was health facilities whereas religious area was the second preferred next to health facilities 54(12.8%). Likewise, holy water 4(0.9%) and traditional healer 3(0.7%) were the least preferred sources of seeking by mothers/caretakers for their sick child respectively.

Out of the 422 children who had been ill in the six weeks before the survey, any care was sought for 336(79.6%) and 86(20.4%) of ill children didn't get any kind of help/care at home, traditional healer, health facilities, holy water place, religious area and Pharmacies. Health facilities, 315(74.6%) were the most common sources where care was sought for the sick children. Moreover, mothers made home remedies 233(69.3%), purchased medicine from Pharmacies 115(34.2%), sought religious area 135(40.5%), sought traditional healer 91(27.1%) and sought holy water 21(6.3%) for their sick children (Table4).

Table 4: Mothers/caretakers health care seeking behavior for common childhood illnesses in Jeldu District, West Shewa Zone, Oromia Regional State, January 2011.

Variables	Frequency	Percent
According to this area sick child often taken to(n=422)		
Health facilities	362	85.8
Religious area	51	12.1
Traditional healer	9	2.1
where do you prefer to seek advice or treatment if your child is sick(n=422)		
Health facilities	361	85.5
Religious area	54	12.8
Holy water place	4	0.9
Traditional healer	3	0.7
Did you seek any advice or treatment for your sick child(n=422)		
Yes	336	79.6
No	86	20.4
From where did you seek any advice or treatment		
Health facilities	315	74.6
At home	233	69.3
Purchase medicine from Pharmacies	115	34.2
Religious area	135	40.2
Traditional healer	91	27.1
Holy water place	21	6.3

The 336 respondents who sought any care for their sick children were asked from where care was sought first. According to their report, health facilities 186 (55.4%) were the most common sources where care was first sought followed by religious area 52 (15.5%), whereas purchased medicine from Pharmacies 40 (11.9%), made home remedies 39 (11.6%), traditional healer 16 (4.8%) and holy water place 3(0.9%) were other sources from which care was first sought by the mothers/caretakers (Figure 2).

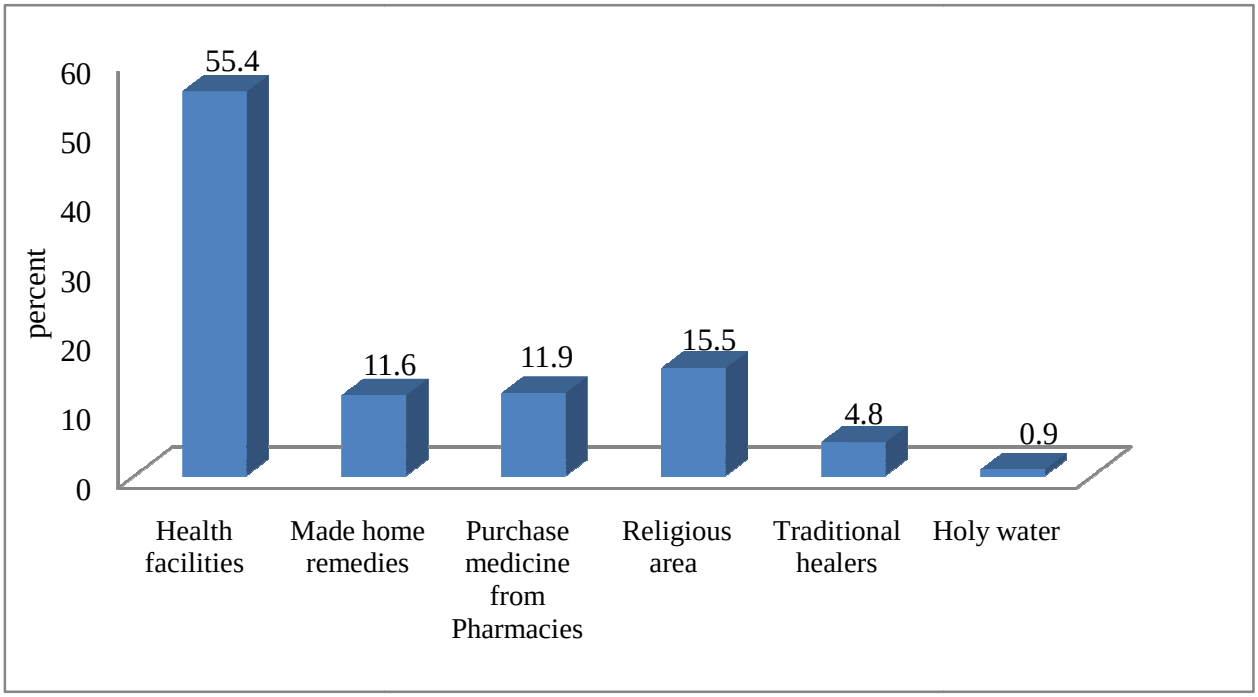

Figure 2: sources where care was sought first for childhood illnesses (n=336), Jeldu District, January 2011.

This survey also identified the magnitude of modern health care seeking behavior for common childhood illnesses. Of the total children presented with particular illness symptoms, more care was sought when children presented with diarrhea 210(81.1%) even slightly more when diarrhea accompanied by cough141 (82.0%) and fever 170(82.1%). Besides, care was sought for suggestive symptom of ARI 118(77.6%), fever 233(79.0%), cough and fever 176(78.9%), cough, diarrhea and fever 126(81.3%) and other symptoms 124(74.3%) (Figure3). In addition, a significant proportion of mothers sought care from health facilities when their child experienced more than one symptom 246(58.3%) and when they perceived the illness as severe 192(45.5%) (Table5).

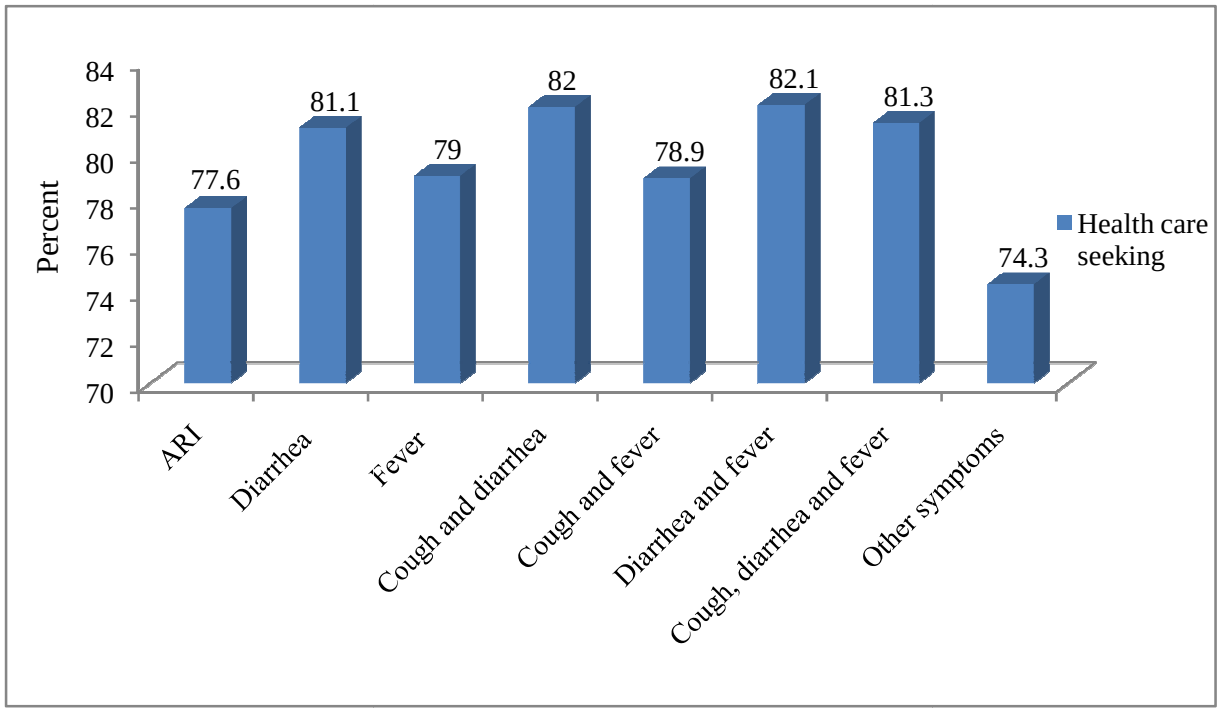

Figure 3: Modern health care seeking practice reported for childhood illnesses, Jeldu District, January 2011.

Table 5: Health care seeking behavior by number of symptom and perceived severity of the illness, Jeldu District, January 2011.

Variables	Seek care from health facilities		
	Yes (%)	No (%)	Total (%)
Number of symptom(n=422)			
One	69(16.4)	43(10.1)	112(26.5)
More than one	246(58.3)	64(15.2)	310(73.5)
Disease severe (n=422)			
Yes	192(45.5)	34(8.1)	226(53.6)
No	123(29.1)	73(17.3)	196(46.4)

As reported by the respondents, the main reasons for visiting health facilities were child's condition worsened 192 (61.0%), in order not the child's condition worsened 121 (38.4%) and by the influence of other people 2(0.6%) (Figure4).

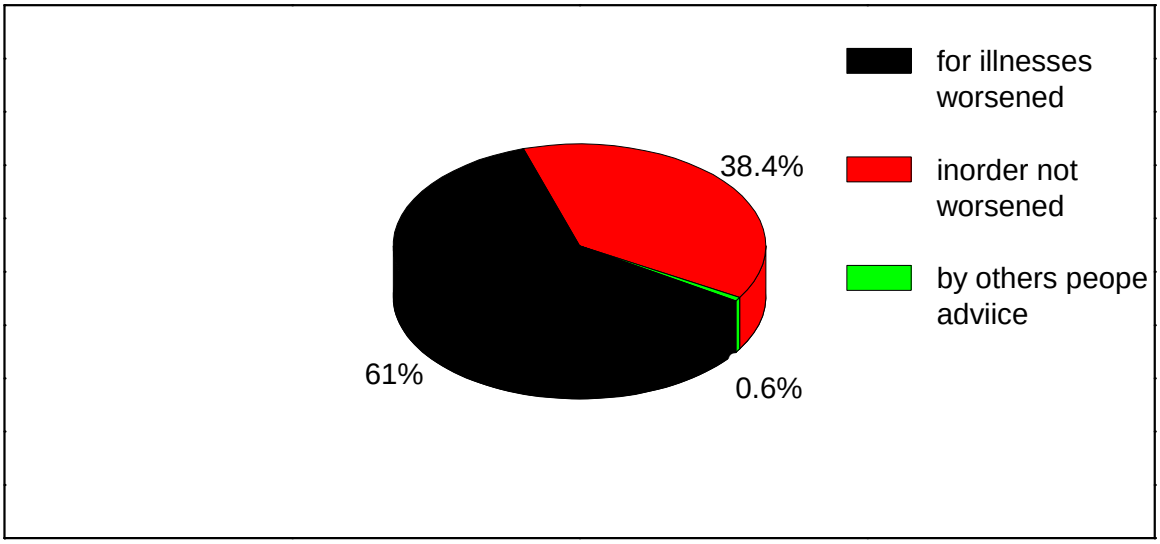

Figure 4: Reasons reported for visiting health facilities for childhood illnesses (n=315), Jeldu District, January 2011.

Regarding the time of care seeking, among 315 mothers who sought care from health facilities, 295(93.7%) sought health facilities within two weeks after recognition of the illnesses, while 20(6.3%) sought health facilities after two weeks. Of those, only 43 (13.7%) sought care within the 24 hours after recognition of the illnesses, while for most sick children, 272 (86.3%) care seeking was started on the second and subsequent days (Figure5).

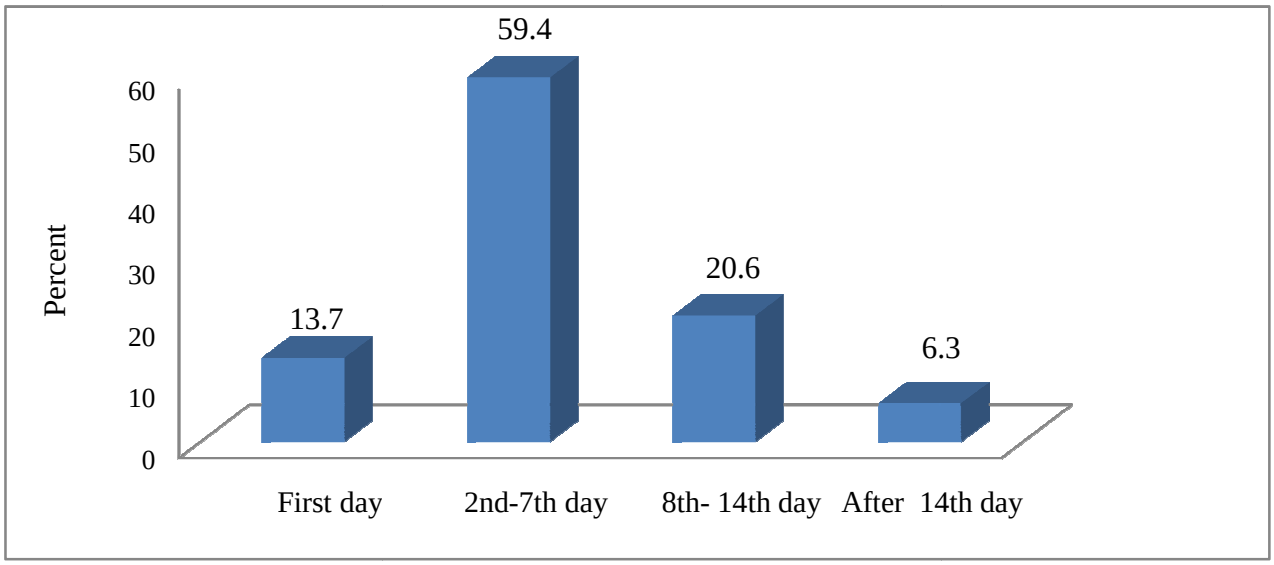

Figure 5: Time of health care seeking reported after recognition of the onset of the illnesses (n=315), Jeldu District, January 2011

This study also showed that the proportion of seeking modern health care for childhood illnesses by place of residence. Of 88 children of mothers of urban dwellers, 74(84.1%) were taken to health facilities and of the 74 urban dwellers who sought care from health facilities, 19(25.7%) were sought care within the 24 hours after recognition of the illnesses. similarly, from the total 334 children of mothers of rural dwellers, 241(72.2%) were taken to health facilities and of these Only 24 (10.0%) were sought care within the 24 hours after recognition of the illnesses (Figure6&7).

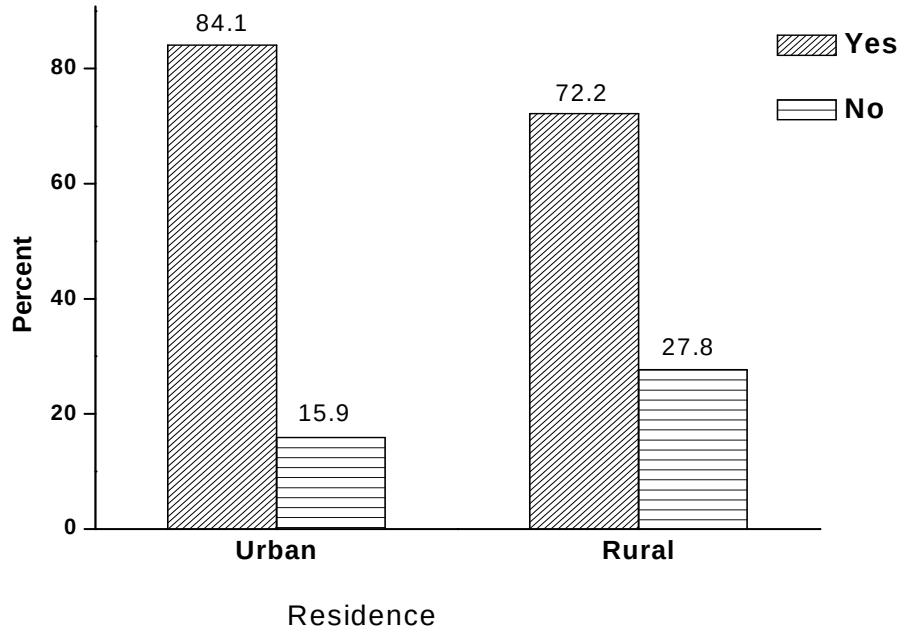

Figure 6: Modern health care seeking practice reported for childhood illnesses by place of residence, Jeldu District, January 2011.

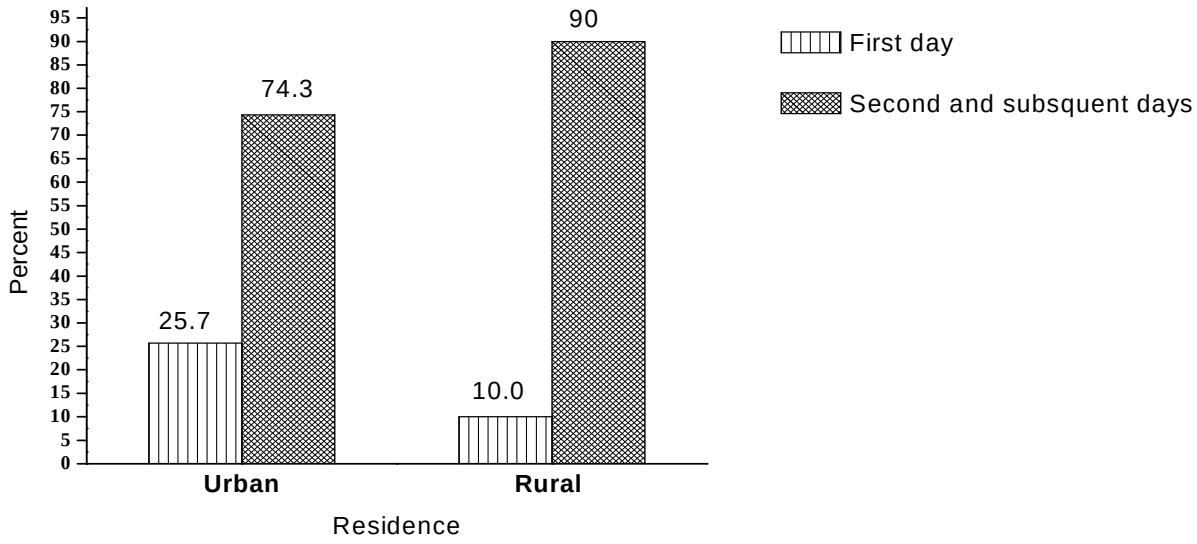

Figure 7: Time of health care seeking reported by place of residence, Jeldu District, January 2011.

One hundred seven mothers/caretakers who did not seek care from health facilities were asked for reasons. Lack of money 43(40.2%) and a perception that the illness was not serious 29(27.1%) were the main reasons given for failure to seek care from health facilities by the mothers. The remaining 32.7% was due to mothers busy 7(6.5%), religious view 7(6.5%), traditional healer is better 3(2.8%), distant from health facility 2(1.9%), treatment was expensive 1(0.9%) and other 15(14.0%) (Figure8).

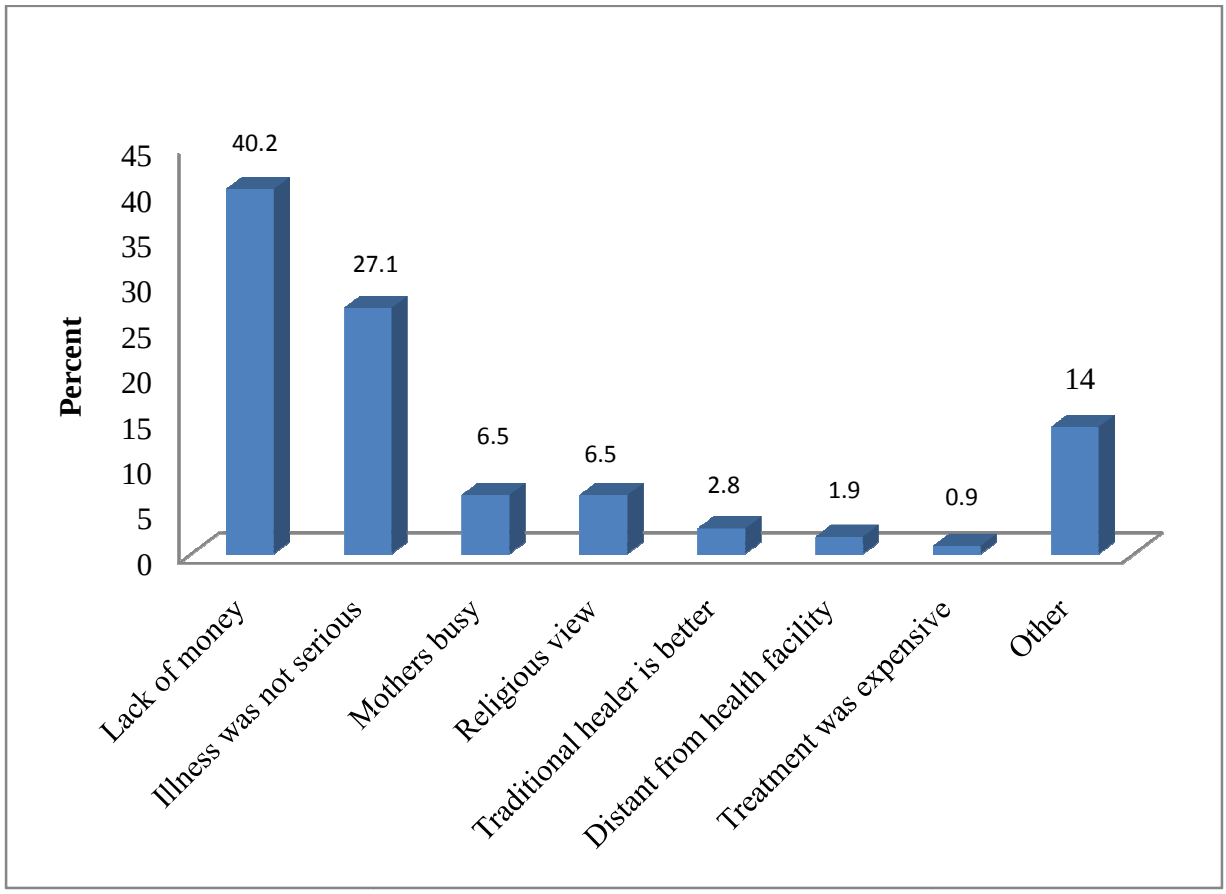

Figure 8: Main reasons for not visiting health facility for childhood illnesses (n=107), Jeldu District, January 2011

Determinants of healthcare-seeking behavior for childhood illnesses

Bivariate logistic regression analysis was done to identify factors influencing modern health care seeking behavior for childhood illnesses in Jeldu District. The results of bivariate analysis showed that place of residence (OR=0.49; 95%CI: 0.26, 0.91), marital status of the mothers (OR=2.72; 95%CI: 1.63, 4.55), number of symptoms experienced by the child (OR=2.40; 95%CI: 1.50, 3.83) and perceived severity of the disease (OR=3.35; 95%CI: 2.10, 5.34) were significantly associated with modern health care seeking behavior, whereas mother's age (OR=0.99; 95%CI: 0.62,1.56), religion, occupation of the mothers (OR=0.32; 95%CI: 0.1,1.10), educational status of mothers, family size in the households (OR=1.00; 95%CI: 0.64,1.55), average monthly income of the households (OR=1.84; 95%CI: 0.74,4.53), experience of child death before (OR=0.78; 95%CI: 0.46,1.32), sex of child (OR=1.07; 95%CI: 0.69,1.68) and age of child had no significant association.

To identify the independent predictors of health care seeking from health facilities or providers' multivariate logistic regression analysis was performed. The result of multivariate logistic regression analysis revealed that, marital status of the mothers (OR=2.81; 95%CI: 1.54, 5.13), number of symptoms experienced by the child (OR=1.98; 95%CI: 1.20, 3.36) and perceived severity of the illnesses (OR=3.75; 95%CI: 2.24, 6.28) were significantly associated with modern health care seeking for childhood illnesses. However, being urban and rural, (OR=0.90; 95%CI: 0.43, 1.88) had no significant association after adjusted to the other variables (Table6).

Table 6: Bivariate and multivariate analysis of health care seeking behavior for common childhood illnesses in Jeldu District, West Shewa Zone, Oromia Regional State, January 2011.

Variables	Health care seeking (n=422)		Odds Ratio (95%CI)	
	Yes	No	Crude	Adjusted
Residence				
Urban	74(17.5)	14(3.3)	1	1
Rural	241(57.1)	93 (22.0)	**0.49(0.26,0.91)***	0.90(0.43, 1.88)
Mothers age				
<=30	204(48.3)	69(16.4)	1	1
>=31	111(26.3)	38(9.0)	0.99(0.62,1.56)	0.89 (0.48, 1.65)
Marital status				
Currently married	269(63.7)	73(17.3)	**2.72(1.63,4.55)***	**2.81(1.54, 5.13)***
Currently not married	46(10.9)	34(8.1)	1	1
Religion				
Orthodox	143(33.9)	46(10.9)	1	1
Protestant	151(35.8)	58(13.7)	0.84(0.53,1.31)	0.93 (0.56, 1.55)
Wakefata	21(5.0)	3(0.7)	2.25(0.64,7.9)	2.45 (0.62, 9.73)
Occupation				
House wife	26(6.2)	3(0.7)	1	1
Not house wife	289(68.5)	104(24.6)	0.32(0.1,1.10)	0.40 (0.10, 1.59)
Educational status of mother				
Illiterate	206(48.8)	69(16.4)	1	1
1-8 grade	95(22.5)	36(8.5)	0.88(0.55,1.42)	0.98(0.57, 1.67)
≥9 grade	13(3.3)	2(0.5)	2.34(0.52,10.58)	1.73(0.34, 8.73)
Educational status of husband(n=342)				
Illiterate	113(33.0)	31(9.1)	1	
1-8 grade	114(33.3)	31(9.1)	1.01(0.58,1.77)	
≥9 grade	42(12.3)	11(3.2)	1.05(0.48,2.27)	
Family size in house holds				
≤ 5 persons	177(41.9)	60(14.2)	1	1
≥ 6 persons	138(32.7)	47(11.1)	1.00(0.64,1.55)	0.74 (0.40, 1.37)
Average monthly income of the household				
≤600	284(67.3)	101(23.9)	1	1
≥601	31(7.3)	6(1.4)	1.84(0.74,4.53)	1.49(0.54, 4.07)

Experience of child death before				
Yes	82(19.4)	23(5.5)	1	1
No	233(55.2)	84(19.9)	0.78(0.46,1.32)	0.87 (0.48, 1.59)
Age of child (in month)				
<6	38(9.0)	8(1.9)	1	1
6-11	45(10.7)	22(5.2)	0.43(0.17,1.08)	0.36 (0.13, 1.00)
12-23	87(20.6)	39(9.2)	0.47(0.20,1.10)	0.50 (0.20, 1.25)
24-35	79(18.7)	23(5.5)	0.72(0.30,1.77)	0.78 (0.29, 2.08)
36-47	45(10.7)	9(2.1)	1.05(.37,3.0)	1.06 (0.33, 3.33)
48-59	21(5.0)	6(1.4)	0.74(0.22,2.41)	1.00 (0.27, 3.77
Sex of child				
Male	183(43.4)	64(15.2)	1	1
Female	132(31.3)	43(10.3)	1.07(0.69,1.68)	1.05 (0.64, 1.74)
Number of symptom				
One	69(16.4)	43(10.2)	1	1
More than one	246(58.3)	64(15.2)	**2.40(1.50,3.83)***	**1.98 (1.20, 3.36)***
Disease severe				
Yes	192(45.5)	34(8.1)	**3.35(2.10,5.34)***	**3.75(2.24, 6.28) ***
No	123(29.1)	73(17.3)	1	1
Time taken to reach the nearest health facility on foot				
<30 minute	135(32.0)	45(10.7)	1	1
30-60 minute	109(25.8)	32(7.6)	1.12(0.68,1.90)	1.36(0.75,2.47)
>60 minute	71(16.7)	30(7.1)	0.79(0.46,1.36)	1.31 (0.69,2.47)

statistically significant

6. DISCUSION

This study found that, the actual modern health care seeking practices reported by mothers/care takers was less than that of their preference of modern health care (85.5%) for childhood illnesses. According to this study, care was sought from health facilities for 74.6% of the sick children which is higher than the findings reported in study conducted Derra District, Liben District and south west Ethiopia (14, 15, 24).

A study conducted in Malawi showed that traditional healers were frequently seen first when children became ill (21). Another study in rural Guatemalan also identified that more help and treatment advice were sought from older women and traditional healers were almost not consulted for childhood illnesses (23). However, better practices were reported from this finding that health facilities were commonly seen first when children became ill.

Health care seeking was related to particular illness symptoms and their perceived severity according to this finding. Caretakers sought care from health facilities more frequently for diarrhea symptoms than cough and fever even more so when the diarrhea was accompanied by cough and fever. Similar finding was reported from rural Nigeria(10). This might be attributable to perceived severity attached to the illnesses.

Community level promotion of preventive activities and prompt health care seeking is vital to tackle the problem of childhood deaths that occur at home from these illnesses, before the child reaches a health facility (28). However, this study reported that, despite the frequent seek any health care (79.6%) for childhood illnesses; there were delays in seeking modern health care for children presented with symptoms of acute respiratory infection, fever, diarrhea and others. For instance, only 13.7% of the care givers sought services of health facilities for sick children within 24 hours after recognition of the illnesses and of the total who sought care from health facilities, 61.0% were initiated by worsening of the diseases. A study conducted in North Shewa, Derra District also reported that, seeking prompt and appropriate health care for these illnesses were delayed (14). In Uganda caretakers' responses with any immediate care-giving action were delayed after they recognized the suggestive symptom of Acute Respiratory Infection, while better practice was reported in a survey conducted in the Lagos Island Area, Nigeria (22,

29). The possible reasons of delayed care seeking might be due to trying traditional care first, lack of money at that time, perceived the illness was not serious and the expectation of that disease would recover.

This study also identified that the proportion of children with any symptoms who were taken to health facility was higher in urban areas than in rural areas. The difference is more when compared across time of care seeking, that about 25.7% of the urban sought prompt care, whereas only 10% among rural dwellers. The difference in health services utilization between urban and rural mothers might be attributable to the fact that urban mothers have more access to the different health services, information and due to differences in educational level.

On the other hand, this study revealed that lack of money and perceptions of the illnesses not being serious were the major reasons for not seeking care from health facility. This finding is consistent with study done in Derra District, North Shewa 2007 and similar reasons were reported in a survey conducted in Kenya (11, 14).

The finding from multivariate logistic regression analysis showed that, place of residence, Educational status of the mothers, religion, age of the mothers, age of the children were not statistically associated with modern health care seeking behavior for the childhood illnesses. This might be due to the narrowing of the disparities among the community by the input of health extension workers.

In all developing regions, child mortality and morbidity are notably higher in the lowest-income households than in wealthier households. They are also less likely to seek essential care from health facilities (6). This study identified that the household income had no significant association with modern healthcare seeking behavior for childhood illnesses. The possible reason of this could be that, mothers tend to seek care from health facilities when the diseases get worsened regardless of their average monthly income.

This study found that, there was no significant difference of the distance from nearest health facility in care seeking from health facilities which is inconsistent with what was reported from Nigeria(10). This might be due to the availability of health posts in the kebeles.

It was noted that mothers who had experience of child death were more likely to seek care from health facilities compared to did not, but the difference was not statistically significant, while a significant difference was reported from Nigeria (10).

In this study, health care seeking was strongly related to the marital status of the mothers. Mothers who currently married/cohabiting with their husbands (OR=2.81; 95% CI: 1.54, 5.13) were more likely to seek care from health facilities than those currently not married. This might be attributable to the husband's influence/contribution.

This study also found that, mothers/caretakers healthcare seeking practices for childhood illnesses were influenced by number of symptoms and their perceived severity of the illnesses. Mothers were more likely to seek care from health facilities when their children experienced more than one symptom and when they perceived the illness was severe. In Kenya perception of illness severity was strongly associated with health care seeking behavior(11). Moreover, other studies from Nigeria and Nepal reported that number of symptoms and perceived severity of illness were the predictors of care seeking behavior(10, 27), while the finding from Derra District was inconsistent (14).

Strengths and limitations of the study

Strengths

Data were collected from immediate caretakers (mothers and other caretakers who assigned to care for the child) of the children.

Being a community based study

Limitations

The cross sectional survey design provides a single time estimate; therefore these findings may not be generalized to other times of the year.

The morbidity data collected are subjective in the sense that they are based on the mother's perception of illness without validation by medical personnel.

This study used a recall period for 6 weeks, the data is based on self-reported treatment seeking patterns, thus susceptible to recall and social desirability bias.

Finally, since cross-sectional study design was employed, the associations do not imply temporal relationships.

7. CONCLUSIONS

In conclusion, this study indicated that although health care was most often sought from health facilities (74.6%) when the children became ill, 30.6% of the sick children were taken to health facilities after sought care from other sources.

Seeking care from health facilities was delayed; only 13.7% of the total sick children received treatment within 24 hours of the onset of illness as recognized by the mothers/caretakers.

Majority of the mothers/caretakers sought care from health facilities after worsening of the illnesses.

Furthermore, marital status of the mothers, number of symptoms and mothers/caretakers perceptions about severity of illness were independent predictors of modern health care seeking behavior for childhood illnesses.

8. RECOMMENDATIONS

This study showed that seeking appropriate health care for childhood illnesses needs further promotional engagements.

Delayed health care seeking is highly a concern. Thus, significant behavioral change effort should be taken to enhance the health care seeking behavior of the mothers/caretakers for child hood illnesses in the locality.

Further study is needed to identify factors related to delay in health care seeking behavior of the mothers/caretakers.

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10. ANNEXES

Annex I. Information sheet and Informed consent statements

Information sheet

Introduction: Hello! Sir/Madam my name is _____and I came from_____.

We are conducting a study on health care seeking behaviour of mothers'/caretakers for common childhood illnesses. The aim of this study is to collect information about health care seeking behaviour for common childhood illnesses and factors affecting it. The results of this study will be helpful for the planners to plan appropriate intervention and to improve child health of this area.

Informed consent statements

I am going to ask you questions about child illnesses within the six previous weeks and your health care seeking behaviour. You are randomly selected to participate in the study. Your participation in this study doesn't involve any direct risk or benefit for you, but is very useful to improve child health in this area. Your name will not be appearing on this questionnaire, and all the information you provide me will be strictly confidential. It takes 20 minutes to finish the interview and you are not obliged to answer any question you don't wish to answer, and you can end this interview at any time, if you wish to do so. Would you like to participate in the study?

Yes_____ No_____

Interviewer, if the answer is "Yes" please sign below to certify the client gave her oral consent to take part voluntarily in the study. Otherwise, thank the client, conclude the conversation and file the questionnaire.

Signature_____

Date _____ Identification No._____

Contact address of principal investigator: - mobile: 0921777954

Email: tufabest@gmail.com

Annex II. Questionnaires in English version

Section 1: socio- demographic characteristics

No	Question	Coding categories
Q1	Residence	Urban.....1 Rural.....2
Q2	Age of mothers in years	_____
Q3	Marital status of mother	Not married...1 Married.....2 Divorced.....3 Widowed.....4
Q4	Religion	Orthodox.....1 Protestant.....2 Others.....3
Q5	Ethnicity	Oromo.....1 Amhara.....2 Other..... 3
Q6	Educational status of mother	Illiterate.....1 Primary school....2 Secondary school and above.....3
Q7	Educational status of husband	Illiterate.....1 Primary school....2 Secondary school and above.....3 I don't know.....4
Q8	Occupation of mother	Farmer……...1 Government employee.....2 Merchant.....3

		House wife....4 Housemaid....5 Other…….6
Q9	Family size per household	<=5..... 1 >=6..... 2
Q10	Average monthly income of the household	<=300..... 1 301-600..... 2 601-900…...3 >900.....4
Q11	Number of under-five children per mother in number	_____
Q12	Had experience of child death before	Yes.....1 No.....2

Section2. Socio-demographics, and health-related information of sick child

No		Coding categories	Skip to No.
Q13	Age of child in months	<6 .....1 6-11.....2 12-23.....3 24-35.....4 36-47.....5 48-59.....6	
Q14	Sex of the child	male .....1 female.....2	
Q15	Number of symptoms he/she has had at any time in the last 6 weeks?	One.....1 Two and above...2	

Q16	Has had an illness with a cough at any time in the last 6 weeks?	Yes....1 → No.....2 →	Q17 Q19
Q17	When had an illness with a cough, did he/she breathe faster than usual with short, rapid breaths or have difficulty breathing?	Yes....1 No.....2	
Q18	For how long?	<2week……1 >2week……2	
Q19	Has had diarrhea in the last 6 weeks?	Yes....1 No.....2 →	Q 21
Q20	Was there blood in the stool?	Yes....1 No.....2	
Q21	Has had illness with a fever at any time in the last 6 weeks? (by history or feels hot)	Yes....1 No.....2	
Q22	Has had illness with a cough and diarrhea in the last 6 weeks?	Yes....1 No.....2	
Q23	Has had illness with a cough and fever in the last 6 weeks?	Yes....1 No.....2	
Q24	Has had illness with diarrhea and fever in the last 6 weeks?	Yes....1 No.....2	
Q25	Has had illness with cough, diarrhea and fever in the last 6 weeks?	Yes....1 No.....2	
Q26	Has had illness with other symptoms in the last 6 weeks?	Yes....1 No.....2	

Q27	Was the disease severe?	Yes....1 No.....2	

Section3. Information about health care seeking behavior of mother/caretaker for sick child.

Q28	According to this area sick child often taken to?	Health institution…….1 Religious area……..2 Holy water place……..3 Traditional healer…....4 I don't know……....5	
Q29	According to you where do you prefer to seek advice or treatment if your child is sick?	Health institution…….1 Religious area……..2 Holy water place……..3 Traditional healer…….4	
Q30	Did you seek any advice or treatment for your sick child?	Yes....1 No.....2 ⟶	Q35
Q31	Where did you seek advice or treatment?(circle all the apply)	health facilities.....1 at home ….....2 purchasing medicines from pharmacy.....3 religious area.....4 traditional healers.....5 Holy water place.....6	
Q32	Where did you first seek advice or treatment?	health facilities.....1 home remedies….....2 purchasing medicines from pharmacy.....3 religious area.....4 traditional healers.....5 Holy water place.....6	

Q33	Main reason for visiting health facility?	Child's condition worsened.....1 In order not the Child's condition worsened ……..2 Other peoples' advise.....3	
Q34	Time of health seeking after onset of the illness?	First day.....1 within1st week.....2 wthin2nd week…...3 After 2nd week…...4	
Q35	Main reason for not visit health facility?	Lack of money.....1 Distance from health facility....2 Illness was not serious.....3 Mother busy.....4 Treatment was expensive.....5 Other specify ……6	

Section 4. Information about health facility.

Q36. Is there any health facility you know in this district?

Yes.....1 ⟶ Q37

No.....2 ⟶ end

Q37. On average how much time does it take to reach the nearest health facilities from your house?

<30 minutes on foot 1

30-60 minutes on foot.....2

> 1 hour on foot.....3

Thank you

Annex III. Questionnaires in Afan Oromo version

Ibsa waa'ee qo'annaa

Akkam ooltan ykn bultan,_____n jedhama, _____ irraa dhufe. Nutis qo'annaa haati ykn gudifituun daa'ima dhukkubsatteef wala'ansaa gootu irratti adeemsisaa jirra. Kaayyoon qo'annaa kanaas dhibeewwan naannoo kanatti baay'inaan daa'ima hubaa jiran furuu fi fayyaa daa'immanii fooyyesssuuf dha. Anis miseensa namoota qo'annaa kana adeemsisan keessaa isa tokko dha.

Unka walii galtee

Ammaa gaaffii waa'ee dhukkuba daa'immanii fi tarkaanfii wal'aansaa kan ati daa'ima dhukkubsatteef gootun si gaafachuuf jira. Atis qo'annaa kana kessatti akka hirmmaattuuf carraadhaan filatamtee jirta. Qo'annaa kana keessatti hirmaachuu keetiif faayidaan kallattiidhaan argattu ykn dhiibbaan sirra ga'u hin jiru, garuu yaadni ati naaf kennitu gara fuulduraatti rakkoo fayyaa daa'imman naannoo kanaa irratti mul'ataa jiru hir'isuuf fi fayyaa daa'immanii fooyyessuuf baay'ee barbaachisaadha. Maqaan kees waraqaa kana irratti hin barreeffamu, yaadni ykn odeeffannoo ati naaf kinnitus icitiidhaan kaawwama. Gaaffii hunda deebisuuf dirqama miti, yoo barbaachise yeroo kamiyyuu dhiisuu ni dandeessa. Gaaffiilee kana deebistee xumuruufis yoo guddate daqiiqaa 20 fudhata. Kanaafuu, qo'annaa kana keessatti hirmaachuuf fedhii qabdaa?

1. Eeyyee 2. Lakki

Deebiin 'Eeyyee' yoo ta'e armaan gaditti mallattoodhaan mirkaneessi. 'Lakki' yoo ta'e galatoomaa.

Mallattoo_____

Guyyaa _____ Lakkoofsa_____

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Kutaa1. Odeeffannoo walii galaa

	Gaaffiilee	filannoo
G1	Bakki jireenyaa kee eessa?	magaalaa.....1 baadiyyaa.....2
G2	Umuriin kee waggaa meeqa?(kan haadhaa / guddifituu da'imaa)	_____
G3	Haalli fuudhaa fi heerumaa kee maali?(kan haadhaa /guddifituu da'imaa)	Kan hin heerumne....1 Kan heerumte.....2 Kan walhiikan.....3 Kan irraa du'e.....4
G4	Amantaa kam hordofaa jirta?	Ortodoksii.....1 Proteestantii.....2 Kan biroo.....3
G5	Sabummaan kee maali?	Oromoo.....1 Amaaraa.....2 Kan biroo.....3
G6	Sadarkaa barumsaa Kan haadhaa ykn Guddifituu?	Kan hin baratiin.....1 Kutaa 1-4 .....2 Kutaa 5-8 .....3 Kutaa 9-12 .....4 12 ol.....5
G7	Sadarkaa barumsaa kan abbaa manaa?	Kan hin baratiin.....1 Kutaa 1-4 .....2 Kutaa 5-8 .....3 Kutaa 9-12 .....4 12 ol.....5 Hin beeku……6
G8	Hojiin kee maali? (kan haadhaa/ guddifituu da'imaa)	Qottee bultuu……...1 Hojjetuu mootummaa...2 daldaaltuu.....3

		Haadha manaa.....4 Hojjetuu manaa…….5 Kan biro…….....6
G9	Baay'inni maatii mana keessan keessa jiraatan meeqa?	<=5.....1 >=6.....2
G10	Giddugaleessi galii ji'aan argattan qarshiidhaan hammam ta'a?	<=300..... 1 301-600.....2 601-900…...3 >900..... 4
G11	Daa'ima waggaa shanii gadii meeqa qabda? (kan haadha tokkoo qofa)	_____
G12	Kanaan dura daa'imni si jalaa duutee beektii?	Eeyyee.....1 Lakki.....2

Kutaa2. Odeeffannoo walii galaa fi fayyaa kan daa'ima dhukkubsattee

Lak.	Gaaffiilee	Filannoo	Gara gaaffii ___tti darbi
G13	Umuriin daa'ima dhukkubsatee/ttee ji'aan meeqa?	_____	
G14	Saalli daa'ima kanaa maali?	dhiira .....1 dhalaa.....2	
G15	Daa'imni kun yeroo dhukkubsachaa ture/turte mallattoo meeqa agarsiisaa ture/turte?	tokko……1 lamma ykn lammaa ol...2	
G16	Ni qufaasisaa?	Eeyyen....1 → G17 Lakki.....2 → G19	
G17	Gaaffiin 16 eeyyen yoo ta'e ni argansiisaa ykn afuura kutaa?	Eeyyen....1 Lakki.....2	

G18	Hammam irra ture?	Torban 2 gadi….1 Torban 2 ol……2	
G19	Mucaan kee kun torban 6 asi dhibee albaatiitiin qabamee beekaa/tii?	Eeyyen....1 Lakki.....2 →	G22
G20	Albaatii isaa/ishii keessa dhigni ni jiraa?	Eeyyen....1 Lakki.....2	
G21	Mucaan kee kun torban 6 asi dhibee qaama ho'isuun/gubuun qabame beekaa/tii?	Eeyyen....1 Lakki.....2	
G22	Mucaan kee kun torban 6 asi dhibee qufaa fi Albaatiitiin qabamee beekaa/tii? (yeroo tokko)	Eeyyen....1 Lakki.....2	
G23	Mucaan kee kun torban 6 asi dhibee qufaa fi qaama ho'isuun qabamee beekaa/tii? (yeroo tokko)	Eeyyen....1 Lakki.....2	
G24	Mucaan kee kun torban 6 asi dhibee albaatii fi qaama ho'isuun qabamee beekaa/tii? (yeroo tokko)	Eeyyen....1 Lakki.....2	
G25	Mucaan kee kun torban 6 asi dhibee qufaa, albaatii fi qaama ho'isuun qabamee beekaa/tii? (yeroo tokko)	Eeyyen....1 Lakki.....2	
G26	Mucaan kee kun torban 6 asi dhibee mallatoo armaan oliin ala agarsiisaniin qabamee beekaa/tii?	Eeyyen....1 Lakki.....2	
G27	Dhukkubichi itti cimeeraa?	Eeyyen....1 Lakki.....2	

Kutaa 3. Odeeffannoo haati/ guddifituun daa'ima dhukkubsateef/tteef mana yaalaa fayyadamuu gootu

G28	Akka naannoo kanaatti daa'imman yeroo dhukkubsatan irra caala garamitti geeffamu?	Mana yaalaa/gara ogeessi fayyaa jirutti……...1 Gara mana amantaatti….2 Gara xabalaatti…….....3 Gara warra mala aadaatiin yaalaniitti……4 Hin beeku……5	
G29	Akka yaada mataa keetti mucaan kee yoo dhukkubsate garamitti geessu filatta?	Mana yaalaa /gara ogeessi fayyaa jirutti ……...1 Gara mana amantaatti….2 Gara xabalaatti……3 Gara warra mala aadaatiin yaalaniitti……4	
G30	Mucaan kee dhukkubsate/tte tajaajila waldhaansa argateeraa/tii?	Eeyyen....1 Lakki.....2 ⟶	G35
G31	Gaaffiin 30'n eyyeen yoo ta'e eessaa argate/tte?	Mana yaalaa.....1 Manattan gargaarsa godheef.....2 mana farmaasii .....3 mana amantaa .....4 warra naannootti yaalan.....5	
G32	Jalqaba eessa geessite?	Mana yaalaa.....1 ⟶ Manattan gargaarsa godheef.....2 mana farmaasii .....3 mana amantaa 4	G33

		warra naannootti yaalan.....5	
G33	Sababa mana yaalaa geessiteef?	Dhukubni waan itti cimeef...1 Dhukubni akka itti hin cimeef……..2 Gorsa nama birootiin.....3	
G34	Erga dhukkusatee /ttee guyyaa meeqaffaatti mana yaalaa geessite?	guyyaa1ffaa.....1 torban1ffaa keessaa …..2 torban2ffaakeessa .....3 torban 2ffaa booda.....4	→ G36
G35	Sababa mana yaalaa hin geessineef inni guddaan maali?	Qarshii waan hin qabneef.....1 Manni yaalaa fagoo waan ta'eef.....2 Dhukkubni hamaa waan hin taaneef.....3 Karaa waanan hin qabneef.....4 Gaatiin ittin yaalan mi'aa waan ta'eef.....5 Kan biroo……6	

Kutaa4. Odeeffanno waa'ee mana yaalaa

.G 36. Manni yaalaa ati beektu aanaa kana kessa jira?

Eeyyen.....1 → G37

Lakki.....2

G37. Tilmaaman mana kee irra mana yaalaa sitti dhihoo jiru bira ga’uuf hagam fudhata?

(adeemsa miilaatiin)

Daqiiqaa 30 gadi.....1

Daqiiqaa 30 -60.....2

Sa’aatii 1 ol.....3

Galatoomaa

DECLARATION

I, the undersigned, declare that this thesis is my original work and has not been presented for a degree in this or another university and all the sources of materials used in this thesis have been fully acknowledged.

Name: Tufa Kolola
Signature: _____
Date: _____

This thesis work has been submitted for the examination with my approval as a university advisor

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