SELF-MEDICATION AND ITS DETERMINANTS IN BUTAJIRA, SOUTHERN ETHIOPIA

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By

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DEDICATION

To the memory of my uncle, Belesti and my sister Fentanesh

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Summary

In developing countries including Ethiopia studies on drug utilization pattern at community level particularly on the issue of self-medication and drug hoarding are rare. This community based cross-sectional study that was supplimented by FGD (Focus Group Discussion) was carried out in Butajira, Southern Ethiopia, between September 1994- December 1994 to determine the extent and determinants of self-medication, the extent of drug hoarding at household level and to describe the community's criteria for therapy choice among modern drugs.

The survey results showed that 1207 (6%) persons reported to have been ill in the past two weeks preceding the interview date; out of which 501 (42%) didn't take any drug or herbal medicine for their illness. Among 706 (58%) respondents who took drugs, 201 (28.5%) self-medicated themselves and the majority 115 (57%) of self-medications were carried out by using modern drugs. Determinants of self-medication with pharmaceuticals among adults were assessed using bivariate and multivariate analysis; being from meskan sub-ethnic group came out as a significant determinant { adjusted OR, 3.5 with 95 % CI (1.39, 8.83)}. Six hundred and eighty eight (14 %) of the studied households found storing drugs and 97% of these households were found storing traditional herbs. Colour, shape and dosage form are the criteria for therapy choice. In addition, injections are chosen as the most important remedy by most participants of the FGD.

In conclusion, this study highlights that self-medication is one of the major form of health care options in the studied community and it is largely carried out with modern pharmaceuticals. Finally, the study recommended that health education on rational use of drugs using local native language and local meanings to pharmaceuticals is essential to avoid inappropriate use of drugs in self-medication. Studies to evaluate the effectiveness of drug information medias is also recommended.

1. INTRODUCTION

It is evident that drugs play a greater role in developing countries than developed countries to prevent and treat infections. This is due to higher prevalence of infections and parasitic diseases in developing countries (1). But approximately 40% of the population in developing countries lack reliable access to adequate health care(2). Economic, geographical and cultural factors, all combined reduce the access to basic drugs, resulting in a high mortality and morbidity observed in Africa (3).

Drug shortage in public sector and poor access to public health facilities contributed to the high rate of self-medication with medicines bought in private market. Public dissatisfaction with bureaucratically organized health care services has also played a role to expanding self-medication practices (4,5). Lack of drug regulatory mechanism is also another contributing factor for self-medication (4). Self-medication is frequently irrational, in that the wrong drug or an incorrect dosage is taken, or a drug is taken when no drug at all is necessary.

In the past few years, it has become increasingly clear that simple availability of drugs does not always solve the problem of drug use. Considerations of what

actually happen when drugs are made available shifts the debate from a question of pure logistics and supply towards approaching medicines as element of cultural totality (4,6).

In Ethiopia communicable diseases are the major causes of morbidity and mortality. However, there is a remarkable scarcity of modern drugs to treat these diseases.

In countries where the incidence of communicable diseases is high and the health service coverage is low, self-medication and use of local remedies are the only available alternatives.

Most researches on the use of pharmaceutical examined information on macro-structural conditions from a top-down perspective, with emphasis on the production and supply of pharmaceutical and their utilization by health care providers (6).

Little attention has been given to the understanding of how people view medicines and how they use them. Yet this understanding is critical to the successful implementation of the essential drug policies that intend to rationalize the use and distribution of pharmaceutical.

In Ethiopia, in order to ensure the availability of essential drugs and medical supplies in adequate quantity and variety, emphasis was placed on strengthening local

productions of pharmaceutical. But no effort has been made to create an appropriate drug information system, either for health professionals or to the public; this resulted in the indiscriminate practice that prevailed in drug prescription and dispensing which in turn gave the way to rampant self-medication practices (7, 8).

To provide appropriate drug information services and prepare educational materials for public and design training programme for health professionals, it is important to identify the extent and forms of drug misuse in the community.

As in other developing countries, in Ethiopia few studies are available concerning the community's behaviour in relation to utilization of drugs, particularly the extent of self-medication and drug hoarding. It was to address these information gaps that this research was conducted in Southern Ethiopia, Butajira Woreda where the Department of Community Health is conducting a continuous demographic surveillance to provide sampling frame for health related researches.

2. LITERATURE REVIEW

2.1 Background

Public health interventions are the most important measures in improving the developing world health. However, essential drugs have an important part to play (9). That is why WHO included the provision of essential drugs as one of the main strategies in primary health care. To ensure that all people, no matter what their situation, are able to obtain the drugs they need at the lowest possible price, that these drugs are safe, effective and that they are prescribed and used rationally, WHO established Action Programme On Essential Drugs(APED) in 1981 (10, 11).

Action Programme On Essential Drugs provides operational support for countries to develop national drug policies and to work towards the rational use of drugs. Evaluation of APED in 13 countries with an essential drug programme revealed that although the supply and availability of essential drugs had improved there were still problem in drug utilization. The resistance of the health workers to change their prescription practices, the popular idea "pill for every ill", the practice of self-medication and poor patient compliance were identified to be the major obstacles to the rational use of drugs (12).

Even though irrational use of drugs is a global problem, it is widespread within formal and informal health sectors of many developing countries. It causes serious health and financial problems, for example drug resistance, iatrogenic diseases, adverse health effects and unnecessary financial burden on consumers (12,6).

In many countries a large proportion of national health care budget and family income goes to purchasing pharmaceutical. According to a World Bank report, pharmaceutical account for 5% to 20% of health care expenditure in industrialized countries; and in developing countries, public sector drugs account for 10% to 30% of the total recurrent costs. As much as 90% of household expenditure on health is spent on drugs in developing countries (13).

2.2 SELF-MEDICATION

The limited studies on self-medication indicated that the majority of illnesses were treated without consultation of professionals(14,15). Dunnell and Cartwright (16) in 1969 conducted the most comprehensive study of medication behaviour in Great Britain. In this study it was found that 80% of adults had used some medications during the two weeks prior to the interview. Self prescribed medications out numbered prescribed ones

by 2 to 1.

In a survey of patients in medical and surgical wards of London teaching hospital, Lader (17) found that incidence of self medication reported for the year prior to interview was 80%.

Roghamann and Haggerty (18) using health diaries and household interview of a random sample of families in Rochester, New York showed that over 90% of actions taken in response to symptoms were based on self-decisions.

Another study also reported that over 50% of patients had under taken some form of self-treatment before deciding to consult
a physician (19). Wadsworth, Butterfield and Blaney (20) in their study of working class area of London revealed for all symptom complaint group discussed, the use of non-medically prescribed medication far exceeded that which was medically-prescribed.

A Study in the Philippines by Hardon (21) on the use of pharmaceutical in households with children revealed that 38% of the households were found to self-medicate their children. Another study conducted in India in 1984 on the utilization of drugs showed that 64% of patients buying medicine over the counter did so without prescription (22).

Different studies in Latin America on self-care

(self-medication) have documented the following percentages (23): Urban Honduras 64.3%, Colombia 59.9% and Ecuador, 50.1%.

A study done in Spain in 1987 in patients attending a primary health care centre revealed that self-medication was reported by 48% of the patients (24). Studies in Ghana, Thailand, Brazil, and the Philippines have shown that the percentage of illnesses treated by self-medication ranges from 50-90% (25). The divergence between the results of different studies on self-medication is often due to differences in the recall period. For example, 60% under- reporting of self-medication occurs when a two week recall period is used instead of one day (26).

Only few studies are available in Ethiopia. Kitaw (27) in his study of self-care in three communities found that it varies from community to community. For instance, in Zewai it was about 23%, in Adamitulu ,14% and in Addis Ababa 48%. This study also documented that the most frequent reason for widespread practice of self care was the perception that the illness was minor or beyond cure. In another study done in Addis Ababa, Kloos,etal, (28) found that self-medication was practiced in 36.1% of the illness experienced in four weeks period preceding the survey.

2.3 FACTORS ASSOCIATED WITH SELF-MEDICATION

Several studies have revealed that the tendency to self-medicate is correlated with demographic and socio-economic variables such as education, sex and income level (29).

Abosede (30) in Sir-Lanka found that litrates self-medicated far more than illiterates. A similar study in Singapore revealed that the tendency to practice self-medication increases with the person's level of education (31).

Lader(17) found that Women self-medicated acute conditions more than men and self-medication of symptoms decreased with age. The study also showed that no relationships were found between social class or marital status and self- medication behavior.

Roghmann and Haggerty in USA (18), Kessel and Shepherd (32) in British primary health centre have documented that males consulted physicians less often and no social class, employment status or size of household differences were found to be associated with self-medication. Kloos, etal, (28) and kitaw (27) in Ethiopia showed that being male and from upper education class were associated with increased practice of self-medication.

2.4 DRUG HOARDING

Drug hoarding is more common in developed countries than in developing societies (33). For instance, in Britain Dunnel and Cartwright (16) found 10.3 per household, over 10 in Iseraeal (34), 9.2 in Denmark (35), and in USA it was 22.5 (36).

Studies on drug hoarding in developing countries are rare (37). Limited researches however, revealed that it is apparently quite low. Kitaw (27) showed that on the average only 0.8 items were found in the studied households of Addis Ababa.

In another study conducted by Kloos, et al (28) the mean number of drugs hold per household by Addis Ababa community was 0.5.

The problem of irrational drug use is believed to continue unless practitioners at all levels make better efforts to understand the community's perception and the various drug utilization patterns. Little is known about this issue and there have been few systematic efforts to research the distribution and use of drugs at community level in the developing world including Ethiopia. In particular, the extent of self-medication and drug hoarding in the household are areas about which information is lacking.

3. GENERAL AND SPECIFIC OBJECTIVES

General objectives: To determine the extent and determinants of self-medication in Butajira, Southern Ethiopia; between September 1994-December 1994.

Specific objectives:

1. To determine the extent of self-medication.
2. To determine the extent of drug hoarding at household level in the community.
3. To identify the determinants of the use of pharmaceuticals in self-medication among adults.
4. To describe the community's "criteria" for therapy choice among modern drugs.

4. SUBJECTS AND METHODS

A) Study design

It was a community-based, cross-sectional study conducted between September- December 1994 to determine the extent and determinants of self-medication, the extent of household drug hoarding in the community, and to describe community's criteria for therapy choice among modern drugs in Butajira, Southern Ethiopia.

B) Study area

Butajira is situated in the south central part of Ethiopia, 130km south of Addis Ababa. It has all-weather road which connects it with Addis Ababa. In 1994, the projected population of the Woreda was 227,595 (38). The rural population of the Woreda has 82 PAs and the urban population has four Urban Dwellers Associations. The major ethnic group is Gurage, with further divisions into four minor dialects: Meskan, Mareko, Sodo, and Silti. The predominant religion is Islam.

The altitude of the Woreda ranges from 1500mt-2300mt above sea level. The climate of the lowland is tropical and that of the highland is temperate. Maize and Enset(false banana) are the main crops cultivated in the

woreda. Pepper is the major cash crop in the lowland areas.

The Woreda has one health centre and two health stations. There are 7 rural drug vendors, five of them are in Butajira town. During the study time, there were more than 15 private clinics but all of them were not licensed (39).

C) Population

1) SOURCE POPULATION

The 227,595 population in 82 PAs and 4 UDAs in Butajira Woreda was the source population.

2) STUDY POPULATION

The study was conducted in a population of 5259 households in 9 PAs and 1 UDA which were already selected by Butajira Rural Health Project on the basis of random sampling proportionate to population size out of 82 PAs and 4 UDAs in Butajira Woreda. Households with at least one family member who had been ill with in the last two weeks preceding the interview date were included in the study.

D) Data collection and management

The questionnaire developed by WHO (41) for household drug use survey was adopted; some additional

closed ended variables were included. It was first prepared in English and translated into Amharic; it was also translated back by a second person. This was then pre-tested and adopted to the local situation.

The questionnaire was used to collect data on demographic characteristics, history of illness in the family in the last fifteen days preceding the interview date and actions taken. Questions about people's various treatment preferences, medicines people hoard in their house, reasons for not using modern medicines for their illness and drug used with out prescription were assessed in the questionnaire (Appendix A).

All the 15 interviewers completed 12^{th} grade and were able to communicate with the local language. They were given vigourous theoretical as well as practical training for 6 days on the questionnaire. The supervisors were workers of BRHP who had more than 8 years of experience in collecting data and knew the study sites very well. The field assistant was the supervisor of BRHP.

The questionnaire was administered to all households in the 9 PAs and 1 UDA. An adult member of households were asked about any illnesses in the household within a recall period of two weeks. When the respondent reported an illness, the questionnaire was administered to that particular member of the family who experienced the

illness or to the care-taker (preferably the mother) when the sick individual was under fifteen years of age.

During data collection, the quality of the data was continuously monitored by spot checking of the interviewers. In addition, each questionnaires was checked daily by the principal investigator. Any incomplete forms or misunderstanding during data collection was given timely correction. To increase the response rate, for those houses which were found closed in the first visit, repeated visits were made up to three times.

The questionnaire survey was supplemented by focus group discussion, which were held in 4 sites representing the four major dialects of the Gurage ethnicity (sodo, meskan, mareko and silti) in the area. Twelve persons (6 females and 6 males) participated in each FGD. To select focus group participants local CHAs played an active role in identifying individuals who could represent different sections of the community (opinion leaders, religious leaders, the elderly and youths). Each discussion was held by sitting on the floor under the tree with participants in a circle. Questions concerning factors that affect the choice of health care, their criteria for choosing modern drugs, the most common illnesses in the community and tracer diseases such as diarrhoea, malaria and cough were used to stimulate the

discussion. The notion of disease causation and the terms used to describe these tracer diseases were also points of discussion (Appendix B).

E) Measurement

The study measured the following variables:

Exposure variables:

Socio-demographic characteristics: age, sex, ethnicity, educational level, occupation and marital status.

Outcome variables (Response variables):

1. Drug being used either over the counter or on health practitioners advice.
2. Criteria for therapy choice.
3. Self-medication, and reasons for practicing self-medication with modern drugs.
4. Illness within 15 days
5. Drug being hoard

F) Data analysis

EPI-INFO Version 5 Statistical Package was employed for entry, cleaning and analysis of the data. Frequency tables, percentages, and proportions were used to present the data.To identify determinants of self-medication with

modern drugs among adults bivariate and multivariate analysis were done using SAS statistical package.

G) Ethical consideration

Informed consent was obatained both from community leaders and individual respondents. In addition, when respondents were found ill during the interview day, referral was arranged with the local CHA for appropriate managment and further to Butajira health center when the cases were beyond CHA's capacity.

H) Operational definitions

1. Modern drug:- used interchangeably with pharmaceuticals ormodern pharmaceuticals are pharmaceutical preparations produced by pharmaceutical campanies (29).

2. Self-medication: refers to the use of herbs and modern pharmaceuticals without consulting health practitioners (40).

5. RESULTS

A total of 5259 households were visited and out of which 398 were not available druing the study time; making a response rate of 92 %.

One thousand two hundred seven person (6%) reported an illness episodes during a two weeks recall period. Table 1 shows the socio-demographic characteristics of those who reported an illness in specified recall period. Females 683 (57%) reported more illness than males 524 (43%) and illiterates (neither read nor write) are majority 590 (49%) in the illness group. Half (50%) of those who reported an illness are from Meskan sub-ethnic group.

Table 1. Socio- demographic Characteristics of those who reported an illness within 2 weeks recall period, Butajira, Southern Ethiopia, Dec. 1994 (n=1207).

Characteristics	No ill	Percent
Sex		
Male	524	43
Female	683	57
Age		
0-4	313	26
5-14	184	15
15-49	517	43
50+	193	16
Ethnicity		
meskan	599	50
sodo	89	7
siliti	270	22
mareko	108	9
others	141	12
Education[1]		
formal education	98	8
read & write	37	3
read only	24	2
neither	590	49
Marital status[2]		
married (in union)	496	41
single	137	11
others	108	9
Occupation[3]		
farmer	222	18
merchant	31	3
housewife	351	29
others	142	12

1. Excludes childern (n=458) who are not literate.
2. Excludes childern (n=466) who are not married.
3. Excludes childern (n=461) who are not students

5.1 Perceived illness

Table 2 summarizes the data on perceived illnesses reported by the respondents in the previous two weeks preceding the interview date. One thousand two hundred seven persons (6%) reported an illness episode during the recall period. Headache was the most (22%) frequently reported complaints followed by fever (21%).

5.2 Sources of drugs used by the sick persons

Table 3 present data concerning the sources of drugs employed by the respondents who reported an illness in the specified recall period by different socio-demographic variables.

Forty two percent of those who reported illness didn't take any drug for their illness; of these 300/501 (60%) were females. Failure to take drugs for their illness was attributed mostly 197/501 (39.3%) to financial reasons followed by the perception that the illness was minor 116/501 (23.2%).

In general the Siliti ethnic groups 138/270 (51%), and illiterates 465/1072 (43%) were found not to take drugs. From those who took drugs for their illness, 620/706 (88%) used modern drugs and the remaining 86/706 (12%) took herbs.

Table 2. Types of illness reported by the respondents in Butajira, Southern Ethiopia, 1994.

Illness	Number	Percent
Headache	496	22.1
Fever	466	20.8
Diarrhoea	231	10.3
Woba[1]	201	9.0
Eye diseases	195	8.7
Respiratory tract compliants	188	8.4
Others[2]	468	20.8
Total illness episodes	2245[3]	

1. Local term for malaria
2. Others includes: undefined illness complaints, skin problems and dyspepesia.
3. Due to multiple responses it is greater than 1207.

Among modern health care facilities government health institutions are the most frequent drug source 284 (45.8%) followed by the use of private clinics 180 (29%), drug shops/rural drug vendors 89 (14.4%) and drugs obtained from small shops, market and friends/relatives accounted for 67 (11%).

5.3 Extent and types of drugs used in self-medication

Table 5 shows the extent and types of drugs used in self-medication by the respondents in two weeks period. The prevalence of self-medication among those who reported illness was 17% (201/1207) and from those who took drugs for their illness, 28.5% (201/706) self-medicated themselves. A large proportion of self-medications were carried out by using modern drugs 57%(115/201).

Of the 115 respondents who used modern drugs without prescriptions, 25.2% (29/115) reported that the illness was minor so need not to see health practitioners, 23.5% (27/115) said that they had used the drugs before for the same illness and found them effective, 20% (23/115) responded that their neighbours/relatives recommended the drug and 11.3% claimed that it is less expensive. Dissatisfaction with

bureaucratic procedures of the health institutions and distance were some of the other reasons mentioned by 20% (23/115) of the respondents (table 6).

Table 3. Drug sources employed by sick persons by Socio-demographic variables in Butajira, Southern Ethiopia. December 1994.

Back ground variables	No. ill	Drug sources: Gov't HI[1]	Private clinics	Drug shops	Trad.[2] heal.	Others	No drug
Sex							
Male	524	121(23.0)	86(16.0)	40(8.0)	40(8.0)	36(7.0)	201(38.4)
Female	683	163(23.0)	94(14.0)	49(7.0)	46(7.0)	31(5.0)	300(44.o)
Age in yrs							
0-4	313	54(17.0)	49(15.7)	27(8.6)	20(6.4)	18(5.6)	145(46.3)
5-14	184	43(23.4)	31(16.8)	16(8.7)	13(7.0)	11(6.0)	70(38.0)
15-49	517	154(29.8)	76(14.7)	32(6.0)	35(6.8)	26(5.0)	194(37.5)
50+	193	33(17.1)	24(12.4)	14(7.3)	18(9.3)	12(6.2)	92(47.7)
Ethnicity							
Meskan	599	137(22.9)	95(15.9)	41(7.0)	45(7.5)	37(6.0)	244(40.7)
Sodo	89	24(28.0)	20(22.5)	4(4.5)	6(6.7)	0(0.0)	35(39.3)
Siliti	270	59(21.9)	21(7.8)	22(8.1)	17(6.3)	13(4.8)	138(51.1)
Mareko	108	23(21.3)	19(17.6)	17(15.7)	3(2.8)	8(7.4)	38(35.2)
Others	141	41(29.1)	25(17.7)	5(3.5)	15(10.6)	901.4)	46(32.6)
Education							
Literate	135	39(28.9)	31(22.9)	8(5.9)	13(9.6)	8(5.9)	36(26.7)
Illit.	1072	245(23.4)	149(13.0)	81(7.6)	73(6.8)	59(5.5)	465(43.4)
Marital status							
Married (in union)	496	146(29.4)	66(13.3)	34(6.9)	31(6.3)	24(4.8)	195(39.3)
Others	711	138(19.4)	114(16.0)	55(7.7)	55(7.7)	43(6.0)	306(43.0)
Occupation							
Farmer	222	57(25.7)	33(14.9)	20(9.0)	20(9.0)	14(6.3)	78(35.1)
Merchant	31	10(32.3)	8(25.8)	2(6.5)	2(6.5)	1(3.2)	8(25.8)
Housewife	351	94(26.8)	46(13.0)	20(5.7)	19(5.4)	13(3.7)	159(45.3)
Others	603	123(20.4)	93(15.4)	47(7.8)	45(7.5)	39(6.5)	256(42.4)

1. Gov't HI - Government Health Institutions
2. Trad. heal.- Traditional healer

Table 4. Sources of modern drugs in two weeks in Butajira, Southern Ethiopia. December 1994.

Sources	Number	percent
1. Gov't Health institutions	284	45.8
2. Private clinics	180	29.0
3. Drug shops	89	14.4
4. Others*	67	10.8
Total	620	100.0

* others: from relatives/friends, market and any shops

5.4 Drug hoarding

688 /4861 (14%) of the households interviewed were found storing drugs. The larger proportions 624/688 (90.7%) stored traditional drugs. The most frequent of traditional herbs stored in the households was *dingetegna root*(Tavarnira abyssinica). Among modern drugs stored, anti-infectives (antibiotics and antimalarials) and pain killers ranked first and second respectively.

5.5 Determinants of self-medication with pharmaceuticals

Among 115 respondents who self-medicated themselves with modern drugs 62 (54%) were adults. As shown in table 7 the result of the bivariate analysis revealed that among adults, being from Meskan Sub-ethnic group(OR= 3.28, 95% CI 1.32-8.11) and age group 15-49 (OR= 1.86, 95% CI 1.02-3.39) are found to be significantly associated with self-medication with modern drugs. The result of multivariate analysis, however, showed that only being from Meskans Sub-ethnicity come out as a significant determinant of self-medication.

No significant associations were observed in the use of self-medication and other socio-demographic variables (sex, educativon, marital status and occupation).

Table 5. Self-medication by types of treatment alternatives in Butajira, Southern Ethiopia. December 1994.

Treatment alternatives	Number	Percent
Total persons who took drugs*	706	100.0
Self-medication:	201	28.4
Took Modern drugs	115	16.3
Took herbal remedies	86	12.2

* Drugs here refers to both herbs and modern pharmaceuticals

Table 6. Reasons given for self-medication with modern drugs for their illness (n=115), Butajira Southern Ethiopia.

Reasons	No. of respondents	Percent
The illness was minor	29	25.2
Used the drug before	27	23.5
Friends/Neighbours/Relatives recommended the drugs	23	20.0
Less expensive	13	11.3
Others	23	20.0

Table 7. Identification of determinants of Self-medication with modern pharmaceuticals among adults who used modern drugs for their illness in Butajira, Southern Ethiopia. December 1994, (N=371)

Characteristics	self-medication		Bivariate		Multivariate	
	yes	no	OR	95% CI	OR	95% CI
Sex						
Male	42	246	0.66	0.38-1.12	0.97	0.32-2.99
Female	20	63	1.00	-	1.00	-
Age						
15-49	29	113	1.86	1.02-3.39	1.68	0.84-3.35
50+	33	196	1.00	-	1.00	-
Ethnicity						
Meskan	37	143	3.28	1.32-8.11	3.50	1.39-8.83
Siliti	12	61	2.49	0.88-7.02	2.42	0.84-7.00
Mareko	7	29	3.06	0.95-9.86	2.91	0.87-9.75
Others	6	76	1.00	-	1.00	-
Position in the household						
Head	32	115	3.06	0.38-24.60	3.96	0.44-35.30
Wife	14	108	1.43	0.17-11.90	2.17	0.22-21.53
Son/daughter	15	75	2.20	0.26-18.35	3.98	0.44-36.03
Others	1	11	1.00	-	1.00	-
Education						
Literate	10	69	1.49	0.72-3.10	1.60	0.70-3.66
Illiterate	52	240	1.00	-	1.00	-
Occupation						
Farmer	26	97	1.32	0.63-2.76	1.01	0.32-3.17
Housewife	23	148	0.77	0.36-1.60	0.82	0.34-2.00
Others	13	64	1.00	-	1.00	-
Marital status						
Married	44	223	1.06	0.58-1.94	0.98	0.42-2.26
Others	18	86	1.00	-	1.00	-

5.6 Summary of Focus Group Discussions (FGDs)

5.6.1 Illness

The most common illnesses in the area identified by most participants of FGD were malaria, diarrhoea, cough and diseases of the eye. Different terms are used by different sub-dialects of gurage ethnicity in Butajira area to describe illness. Terms such as *tikusa* (in mareko), *akina*(in meskan), *metete*(in sodo) and *netom* in siliti are commonly used ones.

5.6.2 Causes of illness

FGDs participants distinguish different causes for different symptoms. Most generally agreed that diarrhoea is caused by insanitary food handling practices, but a few, especially in mareko area, gave personalistic explanations, that is it is the willful act of a witch or divine-being which causes any illness including diarrhoea. Cough and cold are attributed to weather i.e. unexpected sudden exposure to cold or exposed to rain or strong wind.

With regards to malaria, except some participants in mareko area who explained cold and malnutrition as a cause of malaria,
the majority said that it is the mosquito which causes the disease.

5.6.3 Treatment strategies

The FGDs participants reported that herbal drugs are widely used by the community. The most popular herbs are: *dama kese* (Lippia adoensis) for common cold and

fever, *tena adam* (Ruta chaepensis) for cough and cold, *Feto* (Lipidium sativium) for febrile illnesses and headache and *dingetegna root* (Tavarnira abyssinica) is used in sudden illness associated with fever, vomiting and chest pain.

According to FGDs participants dosage form and colour are given the highest value in terms of therapy choice. In this regard, injections are chosen as the most important remedy by most participants of the focus group discussion. They said that they prefer injections because injections cure faster, while tablets tend to accumulate in the stomach and cause discomfort.

Capsules with certain colours are also seen as a critical attributes by which the FGD participants interpret the functions of medications. For instance, tetracycline with a red and yellow capsule shell, is perceived as the most potent drug widely used for many ailments. They said that they use to break the capsule and pour the powder on open wounds or sores, mixed with butter for eye infections and after covering the powder with a piece of cloth they hold it in the mouth for toothache.

Participants of FGD reported to take drugs in quantities different from what is stated in the label or health professionals' recommendations. One man reported that "two *'tyet kenina-yellow and red'* (capsules of tetracycline) is usually effective for every illnesses". On the other hand, when illness is severe they tend to take more than the usual dose to speed up the healing process.

6. DISCUSSION

The proportion of individuals who reported an illness episode during a two weeks recall period in this study is comparable with studies done in the rift valley (27), but lower than what was reported in other studies in Ethiopia (43,44) and else where in Africa (26,45). The difference in reported morbidity could be attributed by difference in recall periods or season of the year in which the studies were conducted. Especially in our study site there was anti-malarial campaign two weeks prior to the data collection in which mass chemo-therapy was given. This might have contributed a low morbidity reporting.

It is interesting to note that the majority of those who reported an illness did not take any action. This finding is similar with reports of other studies in developing countries including Ethiopia (26,27,28,39,43,44). Lack of money and triviality of complaints were the most frequently cited reasons for no-action respondents. Two other studies in Ethiopia and one study in Kenya documented similar reasons (39,43,44).

In this study the use of traditional medicine was low (12.2%); which is comparable with studies done in Ethiopia (43), Kenya (26) and Cameroon (45) but lower than what was reported by Kloos (28) and the National Survey (46), where it was mentioned as the second most common action taken by the sick. The low figure might indicate an under reporting of traditional medicine (47).

Another interesting finding of this study is the extensive use of self-medication (28.5%), in which a similar results were documented in a study done by Kloos (28) and other develping countries (22,26). It is however, generally difficult to make a comparative

analysis since the definitions of self-medication, the recall period and the general study conditions have not been standardized.

In developing countries the use of herbs has been the major forms of self-care for centuries. The introduction of modern medicine and advertising of pharmaceutical firms however, shifted to the use of modern drugs in self-medication practice (42). The finding of the present study also reveal that both traditional and modern drugs are being used by Butajira community in self-medication. But the majority (57.2%) of those who self-medicated themselves used modern drugs. This indicates that pharmaceutical are replacing the traditional use of home made or herbal medications in self-medication practices in Butajira community.

Drug hoarding is another issue which was considered in this study. It is very low in the studied community and this result is consistent with what was documented by Kitaw (27) and Kloos (28). Although drug hoarding is low in the study community, it is quite disturbing to note that from modern drugs that are found stored by household, anti-infectives ranked first in terms of frequency. If anti-infectives are available in the household in a community where literacy rate is low (43) and drug information service is inadequate, misuse of these potent drugs are likely to occur which may lead to emergence of resistant strains of pathogens against these drugs.

People may use particular drugs because of their colour, shape or usefulness in similar diseases (42). The finding of this study also describes that the Butajira community widely practice self-medication with modern drugs giving their own meaning to different pharmaceuticals. The content of tetracycline (with red and yellow capsule shell) is emptied and applied on open

wounds; after mixing with butter used for eye infections. Such misuse of antibiotics for skin disorders is described by Kloos (28) in Addis Ababa and Hardon (29) in the Philippines.

Regarding determinants of self-medication with modern drugs, educational, marital, and occupational differences had no significant association with self-medication. Studies done by Jefferys, Brother Stone and Cartwright (48), and Lader (17) reported similar results but Saeid (49) in Saudi Arabia found that education was highly associated with the practice of self-medication and it was the literate group which was found to self-medicate higher than illiterates. The difference in the study results between Saeid and ours might be due to the low sample size of the literate group in the present study. In addition, since Saed's study was institution based the literate group might have over represented in his study population as education tend to increase the health seeking activities. In this study only being from Meskan ethnic sub-group appeared as a significant determinant of the practice of self-medication with modern pharmaceuticals both in bivariate and multivariate analysis. This could be due to the fact that the majority of the Meskan ethnic group are living in and in the close proximity of Butajira town, where drug shops and illegal drug sellers are available more than other areas in the Woreda.

To minimize information bias associated with data collection, a close ended and pre-tested questionnair was employed. In addition a standerdized vigrous training was given to the interviewers.

The study, however, is not devoid of the weaknesses of the survey results described by Kroeger (47) in which recall of illness events decline even during the first week.

CONCLUSION AND RECOMMENDATIONS

The finding of this study highlights that the extent of self-medication is high in Butajira community and the use of pharmaceuticals in self-medication has become a common phenomenon in the studied community. And it is also evident that anti-infectives are being used in sub-optimal dosage for illnesses which are not indicated. In addition colour, shape and dosage forms are found to be the criteria for therapy choice.

Self-medication is coping with health problems at the most primary level. So, it is not possible to prevent the community from doing it, but educate them to practice it rationally. Hence, health education on rational use of drugs, using local native language and local meanings to pharmaceuticals is critical to successfully increase the awareness level of the public about the dangers of drug misuse. In this regard, the search for an effective IEC (Information Education and Communication) interventions become very clear and hence studying the evaluation of various drug information and education medias is recommended. In addition, it must be known that the main objective of pharmaceutical service should be health not money. In this line, training and establishing control mechanism for peripheral health workers and private rural drug vendors is essential. Since different community may have different pharmaceutical traditions, a more in-depth anthropological study in a different community is recommended to generalize the findings of this study.

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Appendix A. Questionnaire on self-medication and its determinants in Southern Ethiopia, Butajira.

No.	Questions and filters	Coding	Skip to
1.	Was there any member of the household who has been ill in the last two weeks?	1 yes 2. no	28
2.	Are you the one who has been sick or are you the care taker?	1. sick person 2. care taker, relation with the sick	
3.	Sex of the sick person	1. male 2. female	
4.	Age of the sick person	_____ yrs _____months	
5.	Marital Status	1. married(only 1) 2. married(>1) 3. divorced 4. single 5. widowed 6. child	

6. Occupation
   1. Govt employee
   2. farmer
   3. merchant
   4. student
   5. house wife
   6. jobless
   7. others, specify———

7. Educational status
   1. literate,——— grade
   2. read and write
   3. read only
   4. neither
   5. child

8. Ethnicity
   1. sodo
   2. meskan
   3 silti
   4. mareko
   5. others,————

9. What was the illness that you/the sick person experienced in the last two weeks?
   1. fever
   2. headache
   3. diarrhoea
   4. diseases of the eye
   5. cough, cold and other respiratory symptoms
   6. malaria
   7. Others specify_____

10. Did you/the sick person take any drugs ?
    1. yes ————————12
    2. no

11. What was the reason for not taking the drug?————————————

12. What was the type of drug that you/the sick person took?
    1. modern medicine ——— 14
    2. traditional medicine

13. What was the reason for not using modern medicine?
    1. traditional medicine is more effective
    2. the health institution is far from my home
    3. modern medicine is expensive
    4. long waiting time/ tiresome proceders in heath institutions
    5. other, specify————

14. Can you tell me the name of the drugs you used?
    1. no————
    2. yes, write its name—

15. Can you show me please
    1. no
    2. yes, write its name from the package

16. Where did you get the drugs?
    1. government health institution_____21
    2. Private clinics__21
    3. Pharmacies or drug shop
    4. Freinds/ relatives /neigboures
    5. Market or any shop
    6. Others

17. Was it with prescription?
    1. yes————————21
    2. no

18.If with out, why?

1. I took the same drug before for the same type of illness
2. My relative/friend/ neighbour took it before for such type of illness
3. the illness was minor so I need not to go to health institutions
4. It was less expensive
5. Dissatisfied with health institutions activities
6. Others_____

19. Do you believe that buying drugs from shops is a good form of treatment option?

1. yes
2. no_____ 21
3. no answer_____21

20. Is it better than going to the health center ?

1. yes
2. no

21. Did the drug you/the sick person took helpful?

1. yes
2. no
3. worsen the illness

22. Did you pay for the drug?

1. yes
2. no_____25

23. Did you buy all drugs prescribed for you?

1. yes_____25
2. no

24. What was the reason for not buying all?

1. economical problem
2. unable to get the drugs
3. I bought some and that cured me
4. others_____

25. Did you take the drug according to health professionals advice? 1. yes_____ 27
2. no

26. What was the reason for not following health workers advice?

1. get better hence discontinued
2. I forgot the order
3. I had social entertainment hence discontinued
4. others_____

27. Status of the sick in the household

1. head
2. wife
3. child
4. relative
5. others

28. Do you know the nearest health institution?

1. yes
2. no_____ 31

29. Do you think that it is far?

1. yes
2. no

30. How far ? _____hrs/_____ min

31. Do you have any drugs stored at home for emergency?
    1. yes
    2. no——————————— 34

32. Type of drug found
    1. modern
    2. traditional———— 34

33. Types of modern drugs stored
    1. Ampicillin(*tyet kenina black and red)*
    2. Tetracycline(*tyet kenina yellow and red*)
    3. Chlorampinicol (*tyet kenina green and white*)
    4. Anti-pain
    5. Antimalarial
    6. ORS
    7. Others

34. How do you identify drug whenever polypharmacy is prescribed to you?
    1. by reading
    2. asking help
    3. by the size/ colour/shape of the drugs or packing materials
    4. guessing
    5. others———————————

35. When liquid medications are ordered to you how do you measure?_____

36. When you visit health institutions, what type of treatment do you prefer? 1. injections
2. tablets
3. syrup
4. as ordered
5. no answer

37. What reason do you give for your choice in Q. 35 ?
_____

38. By chance if you for get to take your morning dose what would you do? 1. Double the next dose to compensate
2. ignore it
3. I will take immediately when I remember it.
4. others _____

Appendix B. Questions for Focuss Group Discussions

1. What are the common illnesses in this area?
2. Do you know what causes these illnesses?
3. Has any body here been ill within the last two weeks?
4. Did you know what the illness was?
5. What did you do about the illnesses?
6. What was the reason for your choice?
7. When you treated the illness at home:
   - what drug did you use?
   - where did you obtain them?

Appendix C. INTERVIEWERS GUIDE

In order to secure consistency in the data collection process and avoid misinterpretation, you should strictly follow the following instructions.

1. Introduce yourself and the purpose of your visit.
2. Make sure that the respondent is voluntary to participate.
3. Before starting the interview make sure that there has been a sick person in the house with in the last two weeks.
4. Read the questions as they are written.
5. Use pencils to fill in all questions.
6. Write clearly and neatly.
7. Please, interview the respondent privately if possible.
8. Try as hard as possible to get all the questions answered.
9. If you find more than one ill person in a house use separate questionnaire forms for each of them.
10. If you find a house closed or no respondent at the time of visit, make up to two return visits.
11. Do not forget to write household / patient no., date and your name on the front page of each questionnaire.

DECLARATION

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

Name Tefesi Gedif

Signature 

Place Addis Ababa

Date of submission: April, 1995.

ስለመድኃኒት አጠቃቀም ግንዛቤ ለማግኘት

የተዘጋጀ መጠይቅ ቡታጅራ 1987

ተራ ቁጥር	ጥያቄዎችና ማጣሪያዎች	የመለያ ምልክቶች አሰጣጥ	የሚታለፈበት ጥያቄ
1	በለፈት 15 ቀናት ታሞ የነበረ የቤተሰብ አባል አለ?	1. አለ 2. የለም → 28	
2	ህመምተኛው ዕርስዎ ነዎት ወይንስ አስታማሚ	1. ህመምተኛ 2. አስታማሚ፣ ከህመምተኛው ጋር ያለወት ዝምድና _____ ነው	
3	የህመምተኛው/የመልስ ሰጪው ፅታ	1. ወንድ 2. ሴት	
4	የህመምተኛው/የመልስ ሰጪው ዕድሜ	_____ ዓመት _____ ወር	
5	የጋብቻ ሁኔታ	1. ያገባ አንድ ብቻ 2. ያገባ ከአንድ በላይ 3. የተፋቱ 4. ያላገቡ 5. የትዳር ጊደኛ በሞት የተለየበት 6. ህፃን	
6	የሥራ ዓይነት	1. የመንግሥት ሠራተኛ 2. ገበሬ 3. ነጋዴ 4. ተማሪ 5. የቤት እመቤት 6. ህፃን 7. ሥራ አጥ 8. ሌላ ይገለጽ_____	

7	የትምህርት ደረጃ	1. የተማሩ ደረጃው ይገለጽ _____ 2. ማንበብና መጻፍ የሚችሉ 3. ማንበብ ብቻ የሚችሉ 4. ምንም የማይችሉ 5. ህፃን	
8.	ብሔረሰብ	1. ሶደ 2. መስቃን 3. ስልጢ 4. ማረቆ 5. ሌላ _____	
9.	የሕመሙ ዓይነት ምን እንደሆነ ቢገልጹልኝ	1. ትኩሳት 2. ራስምታት 3. ተቅማጥ 4. የአይን በሽታ 5. ሰል፣ ጉንፋን 6. ሌላ _____	
10	ለህመሙ መድሃኒት ተጠቅመው ነበር?	1 አዎ ወደ 2. የለም	12 ጥያቄ
11	ለምን መድሃኒት አልተጠቀሙም?		
12	የተጠቀሙበት መድሃኒት ምን በር?	1.ዘመናዊ መድሃኒት ወደ 2. የአገር በህል መድሃኒት	14 ጥያቄ

13	ለምን ኃኪም ቤት አልሄዱም?	1. ህመሙን የሚያድነኝ የአገር በሕል መድሃኒት ስለሆነ 2. የጤና ድርጅቱ ከቤቴ ሩቅ ስለሆነ ነው። 3. ዘመናዊ ሕክምና ውድ ስለሆነ 4. ዘመናዊ ሕክምና ከፍተኛ ውጣ ውረድ የሚበዛባቸው ስለሆኑ 5. ሌላ _____	
14	የተጠቀሙበትን መድኃኒት ሊነግሩኝ ይችላሉ	1.አልችልም 2. አዎ፣ ይገለጽ_____	
15	ሊያሰዮኝስ ይችላሉ	1. አልችልም 2. አዎ፣ ይገለጽ_____	
16	መድኃኒቶችን ከየት አገኙአቸው?	1. ከመንግሥት ጤና ድርጅት ወደ _____ → 21 ጥያቄ 2. ከግል ክሊኒክ ወደ _____ → 21 ጥያቄ 3. ከመድኃኒት ቤቶች 4. ከ ጐረቤት/ዘመድ 5. ከገበያ/ሱቅ 6. ሌላ _____	
17	ከሀኪም ቤት ታዝዘልዎት ነውን?	1. ነው ወደ _____ → 21 ጥያቄ 2. አይደለም	
18	ለምን ሀኪም አላማከሩም?	1. መድሃኒቱን ከአሁን በፊት ለተመሣሣይ ህመም ተጠቅሜበት ስለነበር 2. ጐረቤት/ዘመድ ምክር ስለሰጠኝ 3. ህመሙ ቀላል ስለነበር 4. ከውጭ አኪያ ርካሽ ስለነበር 5. በጤና ድርጅቶች አሠራር ስለማልተማመን 6. ሌላ _____	

19	ወደ ሱቅ ሄደ መድሃኒት ገዝቶ መጠቀም ጥሩ ነው ብለው ያምናሉ?	1. አዎ 2. አለምንም ወደ → 3. መልስ የለም ወደ →	 21 ጥያቄ 21 ጥያቄ
20	ወደ ጤና ጣቢያ ከመሄድ ይሻላልን?	1. ይሻላል 2. አይሻልም	
21	የተጠቀሙበት መድሃኒት አሻሎዎታል?	1. አዎን 2. ለውጥ አለመጣም 3. ሕመሙን አበብሶታል	
22	መድኃኒቱን እንዴት ማግኘት ቻሉ?	1. በገንዘብ 2. በነፃ ወደ →	 25 ጥያቄ
23	የታዘዘውን መድሃኒት በሙሉ ገዝተዋልን?	1. አዎ ወደ → 2. የለም	25 ጥያቄ
24	ለምን በሙሉ አልገዙም?	1. በገንዘብ ችግር 2. መድሃኒቱን ማግኘት ስላልቻልሁ 3. በጥቂቱ ስለዳንሁ 4. ሌላ _____	
25	መድሃኒቶችን በባለሙያ ምክር መሠረት ተጠቀመዋል?	1. አዎ ወደ → 2. አይደለም	27 ጥያቄ
26	ለምን በምክሩ መሠረት አልተጠቀሙም?	1. ስለተሻለኝ አቋረጥሁ 2. ትዕዛዙን ስለረሳሁ 3. ግብጥ ስለነበረብኝ አቋረጥሁ 4. ሌላ _____	
27	ህመምተኛው በቤት ውስጥ ያለው ደረጃ	1. የቤተሰብ ኃላፊ 2. ሚስት 3. ልጅ 4. ዘመድ 5. ሌላ _____	

28	በአቅራቢያዎ ያለውን የጤና ድርጅት ያውቃሉን?	1. አዎ 2. አለው ቅም ወደ →	31 ጥያቄ
29	የጤና ድርጅቱ ከቤትዎ ሩቅ ነው ብለው ይገምታሉ?	1. አዎ 2. አይደለም	
30	የስንት ሰዓት መንገድ ይሆናል?	_____ ሰዓት _____ ደቂቃ	
31	በቤትዎ ውስጥ ለድንገተኛ መጠበቂያ መድሃኒት የማስቀመጥ ልምድ አለዎን?	1. አዎ 2. የለኝም ወደ →	34 ጥያቄ
32	የአስቀመጡት መድኃኒት	1. ዘመናዊ መድሃኒት 2. ያገር በሕል ወደ →	34 ጥያቄ
33	በአሁኑ ወቅት ምን ምን ዓይነት መድኃኒቶች አልዎት?	1. አምፒሲሊን(ጥይት ከኒና ጥቁርና ቀይ) 2. ቴትራሰይክሊን(ጥይት ከኒና ቢጫና ቀይ) 3. ክሎራአንፍኒከል (አረንጊዴና ነጭ) 4. የራስ ምታት መድሃኒት 5. የወባ ክኒን 6. አ.አር.ኤስ 7. ሌላ_____	
34	ከአንድ በላይ መድኃኒት በሚታዘዝልዎት ጊዜ ለመጠቀም እንዴት ይለዩአቸዋል?	1. በመጠቀለያው ላይ ያለውን ስም በማንበብ 2. ለሰው በማሰነበብ 3. በመድሃኒቶች ወይንም በመጠቀለያቸው ቅርጽና ቀለም 4. በግምት 5. ሌላ _____	

35	ፈሰሽ መድኃኒቶች በሚታዘዝልዎት ጊዜ በምን ይለኩአቸዋል?		
36	ወደጤና ድርጅቶች ሲሄዱ በይበልጥ የሚመርጡትን የህክምና ዓይነት ምንድን ነው?	1. መርፌ 2. ክኒን 3. ሽሮፕ 4. እንደሀኪሙ ትዕዛዝ 5. መልስ የለም	
37	ለጥያቄ 36 ምርጫዎ ምክንያትዎን ቢነግሩኝ?		
38	በአጋጣሚ ማለዳ መውሰድ የሚገባዎትን መድሃኒት ቢረሱ ምን ያደርጋሉ?	1. ከሚቀጥለው ጋር ጨምሬ እወስዳለሁ 2. እተወዋለሁ 3. ወዲያውኑ እንደስታወስኩ እወስደዋለሁ 4. ሌላ _____	