

Popular Healing and Primary Health Care: A Socio-Cultural Study in Rural North-Eastern Ethiopia

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Abstract

Introduction: Studies have shown that popular healing practices at home could play a major role in solving the problem of overcrowding in primary care services. This study explored the indigenous popular healing practices used by communities in North Eastern Ethiopia.

Methodology: A qualitative ethnographic method was used for this study. Using Kleinman's Cultural Systems Model, we conducted participatory observation (5 months during the span of one year) supplemented by ten focus group discussions (n=96) and 20 key informant interviews with purposefully selected knowledgeable community members. The focus group and key informant interviews included questions about the popular healing as a health care option and popular modes of healing practices. The process of analysis and interpretation was informed by thematically and the analysis of narratives strategies.

Findings: The study found that home remedies are applied for both prevention and remedial purposes. Common ailments that are managed at home include *Nedad* (malaria) and *Mich* (acute febrile illness). Home remedies are prepared in the household by the patient, his/her parent or a family member. However, in cases where home remedies and/or home-based treatment did not cure a patient, other alternatives are looked for such as visiting a bio-medical care facility following a similar model developed by Kleinman in early 1980's.

Conclusion: Since people in the study communities believe that popular healing is a health care option among multiple health-care resources, successful rural primary health care strategy would give due attention to such local resources. This will help to ensure the optimal utilization of Ethiopia's limited resources. [*Ethiop. J. Health Dev.* 2016;30(1):29-43]

Key Words: Popular healing, home remedies, ailments, primary health care, Ethiopia

Introduction

Home remedies are well-known popular healing. However, it is often over-looked as a healthcare option among all societies (1). Even when included in studies, analyses often fail to report on the use of home remedies as a separate category (2). Those studies that do report on home remedy use do not distinguish among the specific home remedies used, obscuring the range of symptoms that individuals treat with particular remedies. Multiple studies have simply asked participants whether they have used home remedies without significant prompts. Such an approach is likely to miss much of home remedy use (3).

Although relatively little is known about popular healing system in Ethiopia, there are studies on the history of popular medications in Ethiopia (4, 5) and on the public health aspects highlighting only the knowledge, attitude and practice related to home remedies (6,7). While anthropological explorations has provided in depth insight to this health care alternative (8-10), a number of ethno-botanical studies has also focused on identifying and categorizing medicinal plants in Ethiopia as well as exploring their function (11).

Though previous attempts remain very important in providing insights into the understanding of popular

healing in terms of the historical and therapeutic value of home remedies, they fail to investigate the numerous socio-cultural aspects of this form of medicine. On top of these, they do not fully explore how to enhance and develop the beneficial aspects of home remedies, including pertinent research to explore possibilities for their integration into "modern" medicine. When integrated with 'modern' medicine, well developed popular healing knowledge and practices have the advantage of reducing overcrowding of primary care services. However this aspect is not well studied in the Ethiopian setting.

Despite evidences of the contribution of home remedies to primary health-care serving as "safety-valve" for many Ethiopians who do not have access to biomedical health-care facilities, such system remains generally out of the country's health-care system (12-14).

Following Kleinman's Cultural Systems Model, the popular enclosure (also known as the lay, non-professional, non-specialist area of society) healing is the level where ill-health is initially recognized and characterized, and health service starts (15). This level of health care alternative is basic to other care options and precedes seeking advice or care from traditional healers or biomedical practitioners (16). Thus, Kleinman's

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Cultural Systems Model which recognizes the existence of more than one type of medical tradition in a society was adopted (15).

This study explored the popular healing practices used by communities in North Eastern Ethiopia in the management of common health problems in their homes. Using data from this qualitative inquiry of popular healing practices in the study community, we (A) explored the level of use of home remedies among rural adults as health care option and, (B) explored the purpose for which home remedies are used for common ailments. It also provided recommendations to key stakeholders regarding how home remedies may be better used as the first resort for ailments in the home using the conceptual framework adopted from Kleinman's Cultural Systems Model (15).

Methods

Design and Study Area: A qualitative ethnographic method was conducted in *Tehuledere* Woreda, an administrative unit in northeast of Ethiopia (17) (Figure 1). The capital of the *Woreda*, Haik, is situated 430 kms northeast from Addis Ababa. According to the *Tehuledere Woreda* Information Office, the *Woreda* covers an area of 45,800 hectares with a population of 152,107 in the year 2014 (19). There were 23 *kebeles* (the smallest local administrative unit) administered by the *Woreda*, including 19 rural, 2 urban and 2 semi-urban towns. The people in this area are members of the Amhara ethnic group and are largely Muslims (95%). They speak Amharic, Ethiopia's official language. As a predominantly rural *woreda*, most inhabitants rely on subsistence farming. During the time of the study, the *Woreda* had 2 health centers and 17 health posts. In 2014, communicable diseases including malaria, lung infections, diarrhea, intestinal parasites, eye infections, skin diseases, and rheumatism were the major public health problems in the area (18).

Accessing and getting into the Field: Given uniformity of the community in terms of socio-economic, religion and cultural characteristics, decision was made to choose five *kebeles* for the study. The other criteria for the selection were the accessibility and agro-ecological distribution of the five *kebeles*. The investigators consulted the *woreda* health extension workers (primary health care practitioners) and local elders on the selection of study *kebeles*. The five selected *kebeles* were: *Gobeya*, *Godguadit*, *Bededo*, *Jari* and *Muti-Belg*. Once the five *kebeles* were selected, study participants of focus group discussions and key informant interviews were selected in collaboration with local elders. The inclusion criteria for the selection of these participants were: adult of age greater than 30; have lived in the community for 15 or more years; mentally fit and reported to be knowledgeable about indigenous way of healing. The exclusion criterion was not being a traditional healer. Accordingly, 96 participants for 10 FGDs and 20 for the

key informant interviews were selected from particularly knowledgeable women and men community members.

Data Collection and Analysis: This ethnographic study was carried out by the principal investigator (MHK) who took the role of observer as participant in the study area for five months between June and November, 2013 (19). This role has helped him to access research participants and health extension workers working in health institutions. The first author was also able to participate on local activities such as rituals, festivities, public gatherings involving health practices, and informally converse with community members. Data from such observations as well as subsequent conversations were regularly recorded in field notes, were photographed, and audio-recorded.

A total of ten focus group discussion sessions (one all male and one all-female in each of the five *kebele*) were conducted. Study participants were adults over 30 years of age identified by local elders in the area to be knowledgeable about local health traditions who were willing to participate in a conversation about their health. The women's focus group discussion was meant to allow them to freely and informally discuss their perceptions of popular healing system, without any socio-cultural inhibitions, (for example religious prohibitions) which might have inhibited the women from speaking on specific topics if men had been included in the group. The focus group discussion was facilitated by the MHK and lasted 1.5-2 hours. The focus group discussion included questions about the popular healing as a health care option and referral patterns between popular healing and biomedical care.

Semi-structured key informants interviews with 20 interviewees from particularly knowledgeable women and men community members identified by the participants of the women and men focus group discussions, respectively were conducted by MHK following the focus group discussions with a view to obtain more detailed understanding of the popular healing systems. Interviews lasted 1–1.25 hours, and were conducted in the informants' private homes. The interviews included questions about common health problems, the remit and perceived value of the popular modes of healing practices for perceived ailments and their management strategies. Focus group discussions and interviews continued until the data in the key themes, popular healing system using home remedies and common health problems management strategies, were saturated (i.e., key points were repeated and no significant new information was emerging) (17, 20).

All focus group discussions and key informant interviews were audio-recorded and transcribed verbatim in Amharic. Texts were read independently by MHK and another professional who speaks the local language and codes were developed in reference to the research questions. Each of the codes was organized into higher-

order conceptual themes. These individual codes and themes were discussed at group meetings until consensus was reached on basic themes and subthemes across the focus group discussions and interviews. Finally, the themes were incorporated into a functioning popular healing system within the framework of primary health care model of the study community (21). Sections of original transcripts and key quotes considered to be illustrative of the themes were translated into English to facilitate discussion with the full research team as needed, because one of the research team members, HB, was a non-Amharic speaker. Data analysis was supported by the use of NVivo 10 computer software.

Ethical considerations: Approval of the study was obtained from the Ethical Review Committee of Addis Ababa University, College of Health Sciences (#037/13/PSP). The purpose of the study, procedures, time commitment, and confidentiality was explained to all participants with information sheets and consent forms. Prospective participants were informed that they may terminate participation at any time during the research, including withdrawal of associated data. They were also given an indication of what will happen to the data, including its potential use in any reports and publications. Then, all participants who participated in the focus groups and interviews gave written informed consent and their anonymity was maintained.

Reflexivity: MHK Status as an Indigenous Ethnographer

The first author's (MHK) "native" status offered both opportunities and limitations for the study (22). He approached this ethnographic work as an "Amharic" speaker and tradition bearer, a member of the "Amhara" elite, and also as a senior pharmacy professional. He was able to use existing networks and contacts within the indigenous institutions, including traditional leaders and local health officials, thereby gaining access to a wide cross-section of people. He carefully reflected on how the data collection process influenced his own perceptions, and how other people responded to him. He also faced the challenge of being perceived as a powerful individual due to his position as a member of the elite and a senior university lecturer. All of these issues concerning competing roles and social perceptions relate to the concept of insider bias. The use of open-ended questions, as well as informal conversations with informants on topics they themselves raised, were among the ways pursued to mitigate these challenges.

Results

Socio-demographic characteristics of study participants: In total, 116 people participated in the study. While 96 people participated in 10 FGDs and 20 people (Male=11 and Female=9) participated as key informants. Age of participants ranged from 35 to 79 years, with a mean of 42 years. Most participants were found to be followers of Islam (n = 109) while the remaining were followers of Ethiopian Orthodox

Christianity. Majority of the participants were married (n=94), rely on farming (n=110) and live in house hold size of six. Just over half (n=68) reported that they were illiterate, i.e. didn't read and write Amharic.

Popular Healing as a Health-Care Option: Medical pluralism is the case than an exception among participants. Local people use multiple health care options such as popular healing, traditional healers and biomedicines, either side by side or sequentially. Many first try popular healing which may include the use of home remedies such as herbal medicine or informal care given by family members and neighbors. Otherwise the other major alternatives were consulting traditional healers or seeking bio-medical care.

A variety of reasons appear to be associated with the preference for use of popular healing using home remedies including: the perceived etiology of illnesses and accessibility (the availability at often no charges) of health care services. Participants argued that popular agents such as families, friends and neighbors were sought for ailments that are caused by natural causes.

The first option of treatment for most common ailments and symptoms, whether acute or chronic, were home remedies. During the observation, it was noted that, conditions perceived as 'common ailments were those which involve symptoms that can be easily diagnosed (e.g. fever, abdominal cramps, minor wounds and cuts, etc.), and only partially compromise the normal functioning of the ill person. It is noteworthy, in this respect, that the Amharic adjectives *qelal* (light) as opposed to *kebad* ('heavy') were routinely used by informants to distinguish between what are considered 'common' and 'serious' illnesses, respectively. Most informants (n=18) articulated, home-based treatments to be satisfactorily effective for dealing with such problems. Some, however, also noted that home remedies are especially useful in cases of emergency and the sudden onset of illnesses (which might be deemed much more serious), at times when it is not possible to avail other sources of health care for various practical reasons. In such instances, people rely on the expediency of home-based treatments, if only for alleviating pain and suffering in the interim. Given that fever is one the most common symptoms, popular healing using home remedies for *mich* (interpreted as non-specific acute febrile illness) is perhaps the most widely and frequently used in this 'first-aid' manner. As one informant put it: *It would be a untruth to claim that we go to the clinic without, at least, having first tried our ye 'mich medhanit' [home remedies for acute fever] [Male, 64, KI]*

However, in cases where popular healing with home remedies did not cure a patient, they decided to look for other alternatives, such as visiting a bio-medical doctor.

One participant suggested that: "It is common to have popular healing using home remedies as my first

preference for treatment and if this failed to cure certain diseases, follows the attendance to health posts and/or health center as a second alternative” (Female, 53, KI).

Most focus group participants said they would continue to use home remedies first, for ailments such as malaria and flue, even if biomedical remedies were provided for free. A number of reasons were given for that including: there are diseases only cured by home remedies; *Allah (God)* created home remedies to manage common ailments at home; participants were not happy with the management of the illness by biomedical health care providers.

I would never stop using home remedies even if modern medicine is free; why would I stop? For one it cures the disease that can't be cured by doctors [Female, 41, FGD]

Most of the time, we are not happy with the management of ailments by doctors. You take your relative to hospital being very ill. The relative gets admitted. You continue to visit the relative to check how she/he is doing, and then you find that your relative is getting worse. You start preparing home medication, and quietly bring the medication to use while in the hospital. [Male, 49, FGD].

Explaining the pluralistic nature of the choice, this study indicated that there is a sequential and integrative form of treatment for ailments such as malaria. Participants in female focus group discussions (n=4) reveal the fact that mothers first apply home remedies for their sick children from malaria as a kind of first aid and then seek biomedical treatment not as separate courses of therapeutic alternatives but as complementary hierarchies of treatment.

I think both are very important and I would like to use them sequentially for malaria; if home remedies do not help, then I would turn to modern medicine. I want to use both. But if there were no home remedies anymore, you don't have a choice, regardless of the expense you go to the modern medicine and save your life; because there is nothing more than life. As long as there is modern medicine it's not a problem and they just go hand in hand; modern and home remedies [Female, 57, FGD].

According to participants of focus group discussions (n=8), most of them have casually learnt about home remedies from their families. One of the female participants said:

I had learned about home remedies from my mother who told me she has in turn learnt from her father. I trust my children will also learn from me. Apparently my son is active learning about home remedies. He asks me questions on home treatment for different ailments which I kept on explaining (Male, 65, FGD).

A female focus group discussion participant who dreamed of her mother-in-law directing her to the home

remedies that would assist a relative suggests that such knowledge, which she had in her unconscious, was given to her by her mother-in-law.

..... you usually dream at night of either your mother or grandmother, or an important family relative guiding you on where to go and get medication for your child, even if this might be in the forest. When you wake up, you would go to the exact place and find the medication described in your dream there, and prepare it in the way in which you have been told in your dream, and this usually helps your child. [Female, 57, FGD].

Data obtained from this study revealed that there are multiple factors that influence the popular healing knowledge transfer systems over time among the *Tehuledere* people. Focus group discussion participants were asked about the sustainability of indigenous popular healing knowledge transfer systems from generation to generations. Most (n=9) of focus group participants reported that the transfer of popular healing knowledge from generation to generation was by word of mouth. It is not documented as most of the knowledgeable elders cannot read and write. One of the female participants had to say:

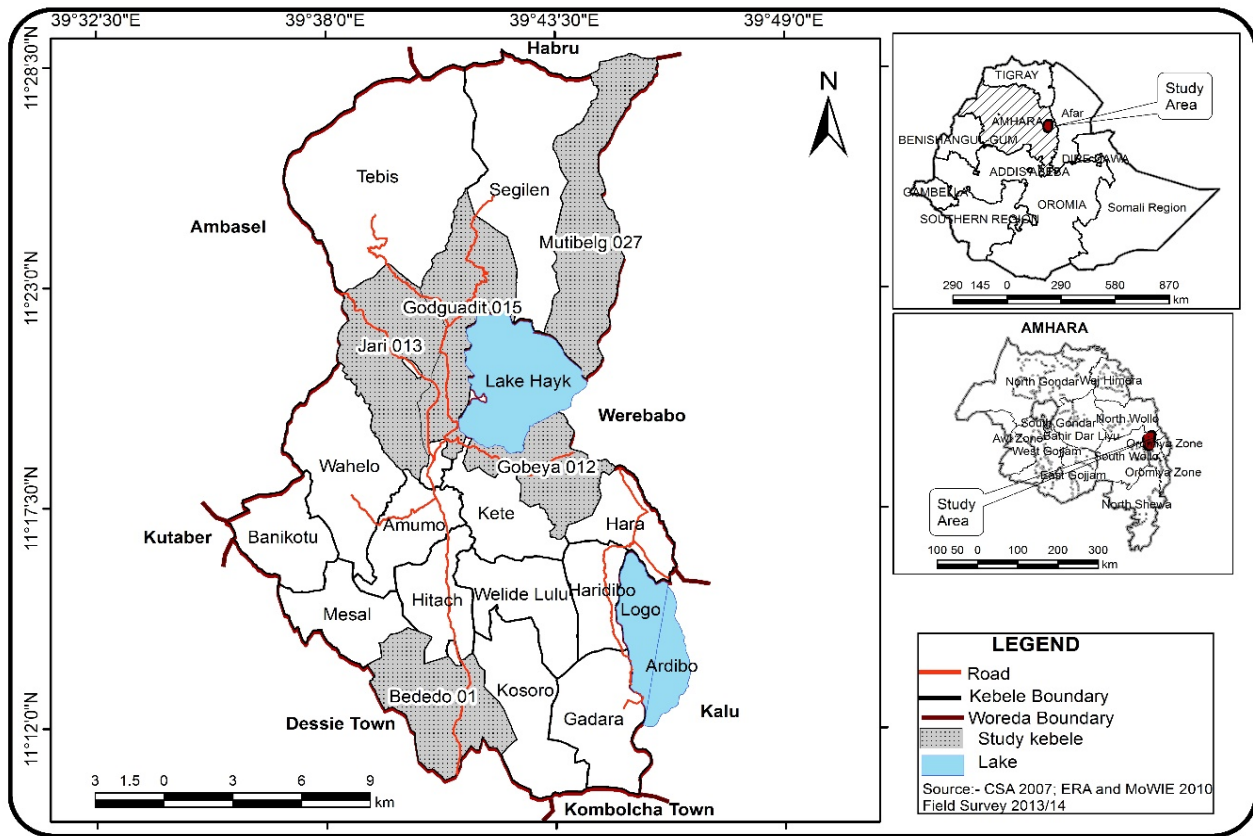
As you know, knowledge of home remedies is transferred from generation to generation by word of mouth. Most famous knowledgeable elders have passed away without transferring the tradition and the knowledge of home remedies. As a result, it is rapidly declining. The knowledge of curable medicinal plants today is known by few people in the communities [Female, 56, FGD].

The findings of the study indicated that the expansion of formal education also influences the use and preservation of home remedies. It contributed to the disrespect for popular healing system and local traditions. With regarding to this, MHK forwarded a question to one of the informants how he had handled this whole popular healing wisdom of his grandmother and he replied that:

We are a bit unconcerned about it; it is as if it is like the Tella Bet'/ local beer halls/, which will always be replenished when they are finished. We forget that one day she will not be there [Male, 35, KI].

Moreover, it was observed that most of the popular healing knowledge concerning home remedies remains in the memories of older and middle aged men and women, some of whom are still practicing it. According to informants, due to modernization influences, young people are not interested to acquire the knowledge of healing using home remedies. For example, one informant put as follows:

I have tried my best to transfer my knowledge to my sons about medicinal herbs. However, they do not seem to be very interested at times [Male, 69, KI].”



Source: TWIO, 2014

Figure 1: Map of Tehuledere Woreda, South Wollo Zone, Amhara Regional State, North-eastern Ethiopia, 2014.

Given the challenge of indigenous medicinal knowledge transfer system, MHK was interested to identify what made the youth not to be interested to acquire the popular healing knowledge from their family members. Thus it was noted, a common reason given was that popular healing was perceived to be ‘backward’. In this regard, one of the young male informants explained,

I don't want to learn popular healing system using home remedies. You know, the practice of popular healing belongs to the old days; we now have 'modern' health-care institutions. If I practice indigenous healing at this civilized time, I am considered to be 'backward'. This is mainly because popular healing is not scientifically tested and its dosage is not standardized. Thus, it is irrelevant for me [Male, 36, KI].

Common health problems: the remit and perceived value of the popular modes of healing practices: This study identified common health problems that were managed within the home situation. The management of common ailments that can be treated at home is similar to the Kleinman popular model. Thus, in line with this model the study communities had well-constructed ailments management strategies, which is discussed in the following section by describing the common prevalent illnesses in the study communities.

There was considerable similarity in the range of the most pressing health problems identified by participants in the study communities which can be managed at

home. Several examples are described below to illustrate when and how home remedies are used in the study community. Moreover, approximate biomedical interpretations and home remedial treatment strategies of the symptoms corresponding to the various conditions identified by local terms are detailed in Table 1.

In local medical treatises, malaria has been referred to as ‘nedad’ (or fever). Malaria stands out as the single largest health problem in the study community. Although malaria is mostly treated by conventional medicine, its symptoms are also mitigated by using home remedies in these communities. In most of the focus groups (n=9), participants were familiar with the most frequent symptoms of malaria such as headache, chills, loss of appetite and fever. Most discussants associated the cause and transmission of malaria with mosquito bites. However, a substantial number of the participants related the disease to particular environments or being exposed to particular climatic conditions. The use of indigenous anti-malarial home remedies was also a widespread practice as stated by participants in focus groups:

.....but what cured me was frying butter and a sheep's tail fat (lat) and taking it in an empty stomach for 7 days... The other treatment is, macerating garlic and chick peas for a few days. If you take this, you will not catch malaria at all. For those who use garlic all the time, let alone malaria (the parasite) you won't even get a mosquito bite [male, 64, KI].

Table 1: The health problems that the respondent from focus groups and in-depth interview managed within the home, *Tehuledere*, north-eastern Ethiopia, May 2013- April 2014

S.N	Health Problem (Local Name)	Biomedical equivalent	Management steps/strategies	Referral
1	<i>Alisha</i>	Abdominal cramps and sweating but no diarrhea.	Prepare medications mixed from Alshume (<i>Laggera tomentosa</i>), Natra (<i>Artemisia absinthium</i> L.) leaves, Ginger, Ades (<i>Myrtus communis</i> s) leaves and clean dust powder; grind all and juice it; then drink a cup of that with an empty stomach then the Alisha will stop	No need to refer because it is dealt with successfully at healers
2	<i>Woreza</i>	Diarrhea with constipation and cramps, like amoeba	Drinking the liquid extract of Ye Woreza leaf (?) with coffee (first round of coffee) and it immediately stops	No need to refer because it is dealt with successfully at healers
3	<i>Berari</i>	<i>Stomach-ache, contraction around the bellybutton</i>	"yeberari" leaf (?), is pounded to drink with coffee	No need to refer because it is dealt with successfully at healers
4	<i>Tilatil or Muachign</i>	Intestinal parasites	a) Drinking a cold infusion of the crushed leaves of Keret (<i>Osyris quadripartita</i> Decn.) or the pounded root of yeayet arag (<i>Staphania abyssinica</i>). b) Ingesting the sap of qulquwal (<i>Euphorbia abyssinica</i>) in a little injera or bread. c) Drinking the liquid extract of the bruised leaves of yafaras zang (<i>Leonotis Africana</i>) and girawa (<i>Vernonia amygdalina</i>) d) Drink the liquid extract of the leaf of Tenbele/ <i>Jasminum grandiflorum</i> / e) Drinking a cold infusion of the gound bark and root of azamir (<i>Bersamma abyssinica</i>)	No need to refer because it is dealt with successfully at healers
5	<i>Ras mitat</i>	severe Headache	a) Snuffing into the nose the crushed leaves of gimearag (?) or durshit (?) b) Dropping the juice or snuffing into the nose the bruised leaves of tinbaho (<i>Nicotina tobacum</i>) c) Inhaling the fumes of the brunt leaves of wagart (<i>Silene macroselen</i>), or tenjut (<i>Otostegia integrifolia</i>).	If condition worsens refer to Health center
6	<i>Nече Bela</i>	Cough persists, with chest pain	a)Decoction of "Galet Ater" (beans) with water if possible add butter and drink it b)Mix root of `munchiro (<i>Rubia cordifolia</i> L.), the leaves of coffee and "Yehatete –Tegedera" (?), and boil it ; drink it for three days c)Macerating a mixture of Munchiro leaf, chickpea (agere ater), black cumin and garlic for the whole day, and drinking it every morning in an empty stomach	If condition worsens refer to Health center

			<p>d) Drinking maceration of black cumin mixed with first round of coffee and freshly made butter every morning with an empty stomach,</p> <p>e) Boil Galeta ater, munchiro, white eucalyptus, Aregressa and inhale the steam.</p> <p>f) Taking an infusion of the boiled leaves of chiquenne (<i>Artemisia afra</i>), some nech shenkurt (<i>Allim cepa</i>), tena ada (<i>Rute chalepensis</i>) and tequr azmud (<i>Nigella sativa</i>) mixed with butter and/or egg.</p>	
7	<i>Rahilo /Sall</i>	Persistently coughing,	<p>a) Massage the body with white chicken</p> <p>b) The root Muchero" will be peeled, Soak it with water, "Galeta Ater" and butter will be mixed and drink</p> <p>c) Taking pills prepared out of the pounded leaves of tosine (<i>Thymus serrulatus</i>) rolled in butter or honey.</p> <p>d) Taking the fresh blood of qoq (<i>Prunus Persian</i>) or karkaro (<i>Phacochoerus aethiopicus</i>)</p>	No need to refer because it is dealt with successfully at healers
8	<i>Gurero sikosil</i>	Sore throat	<p>a) Gargling an infusion of boiled atutch leaves.</p> <p>b) Gargling a potion of the bruised gesho (<i>Rhamnus prinoides</i>) leaves.</p> <p>c) Sucking a pill made of pulverized seed of let (<i>Gosypium barbadense</i>) coated with honey.</p>	If condition worsens refer to Health center
9	<i>Tonsil</i>	Tonsillitis/ Uvulitis	<p>a) Gargling a cold infusion of the crushed leaves of gesho, atutch, or ariti (<i>Artemisia afra</i>)</p> <p>b) Gargling water mixed with salt</p> <p>c) Inhaling the smell of the bruised leaves of azoarag (<i>Clematis hirsuta</i> Perro & Guill)</p> <p>d) Chewing some qerenfud (<i>Eugenia caryophylla</i>)</p>	If condition worsens refer to Health center
10	<i>Juzan</i>	(Leprosy) lesion, itch and scratch	<p>a) "ye azo Kitel"(a crocodiles leaf) (<i>Clematis hirsuta</i> Perro & Guill) eaten to heal inner body and also the leaf will be crushed and smeared all over body</p> <p>b) Boil "ye Jib shinkurt" (A hyenas onion) (<i>Crinum sp.</i>) in water then wash the infected area and tie it over your body</p>	If condition worsens refer to Health center
11	<i>Katelo</i>	Burns	<p>a) Applying some dough or oil; b) applying the flour of toasted buna (<i>Coffee Arabica</i>).</p>	If condition worsens refer to Health center

12	<i>Bigung</i>	Boils	a) Poulticing with busqe (<i>Kalanchoe</i>) or endahula (<i>Kalanchoe quartiniana</i>) or ret (<i>Aloe sp.</i>). b) Plastering it with chewed raw baqela (<i>Vicia faba</i>).	If condition worsens refer to Health center	
13	<i>Kurtimat</i>	Rheumatism	a) Taking a cold juice extracted from the boiled root of tult and zarch embway b) Staining the feet and hands with ensosela (<i>tiens tinctoria</i>) or gurshit (<i>Impatiens abyssinica</i>) mixed with lemon juice and/ or the powdered leaves of hina (<i>Lowsonia inermis</i>), usually for women.	If condition worsens refer to Health center	
14	Wound (when a spike impales somebody's feet)	when the wound gets worse and somebody's feet hurts	a) Applying the powdered seed of gommanzar (<i>Brassica integrifolia</i>) with butter. b) Heat the 'Buske leaf' and step on it, if a spike is inside, it comes out when the wound heals c) Applying the burnt grass of getcha (<i>Cyperus longus</i>), or the crushed root of etse ramnon (<i>Ferula communis</i>). d) Washing the wound with one's own urine.	No need to refer because it is dealt with successfully at healers	
15	<i>Ye ayn himem</i>	Eye-sores	a) Applying into the eye the juice of the crushed leave woynagift (<i>Pentas schimperina</i>), Kase (<i>Lantana viburnoides</i>), embacho (<i>Rumex nervosus</i>) or woyme (<i>Vitis vinifera</i>). b) Drooping into the eye the liquid extract of the tips of woyra (<i>Olea Africana</i>), tambalal (<i>Jasminum abyssinicum</i>), or talenje (<i>Achyranthes esoera</i>) c) Applying butter after cleansing the eye with kase leaves.	If no progress	Health center
16	<i>Ye joro himem</i>	Ear-ache	a) Dropping into the ear the liquid extract of the leaves of qel (<i>Langenaria vulgaris</i>), meche (<i>Guizotia achimoeri</i>), or balas (<i>Ficus palmate</i>) b) Dropping the fat of fish into the ear.	If no progress	Health center
17	<i>Ye tirs himem</i>	Tooth-ache	a) Chewing and retaining in the mouth the leaves of yameder embway (<i>Cucumis sp</i>) or the root of gumaro (<i>Capparis tomentosa</i>) b) Chewing feto seed (<i>Brassica nigra</i>), quado barbare (<i>Mentha piperita</i>), or Ginger. c) Poulticing the gum with nech shenkurt (<i>Allium sativum</i>), or woyra (<i>Olea europaea</i>) stick.	If no progress	Health center
18	<i>Ekek</i>	Scabies	a) Bathing the body with a decoction of the	If no progress	Health center

			crushed leaves of waginos (<i>Brucea antidysenterica</i>), girawa (<i>Vernonia schimperi</i>) and endod (<i>Phytolacca dodecandra</i>). b) Smearing the body with a bruished paste of the leaves of adas (<i>Myrtus communis</i>), gicha (<i>Cyperus longus</i>), the powdered seed of egug (?) and butter.		
19	<i>Likift</i>	White sore	bandaging the sore with the crushed leaves of kitkita (<i>Dodonea viscosa</i>)	If no progress	Health center
20	<i>Shinte Mat</i>	The signs of the disease are, bloated stomach, cramps, spit. and its local name is Alisha	Mix Alshume (<i>Laggera tomentosa</i>) and Ades (<i>Myrtus communis</i>) leaves and grind them then drink the juice twice a day	If no progress	Health center

We do have an indigenous medicinal plant for Malaria, called *Gesho* (*Rhamnus prinoides*), a plant whose leaves are used to brew a traditional drink known as *Tella*. The *Gesho* will be ground and a little amount of water is added on it. And you will filter the crude out and take the filtrate with an empty stomach, this will lower the fever and it will get the disease out of the system through the vomiting. In our tradition, we say *Belese beka* (meaning, it's gone once and for all, forever). But the modern medicine does not pull the malaria out of you, it just hides and waits for the time, so in September/ malaria endemic month/ it will recur and once again you will take the medicine [female, 59, KI]

Regarding his experience of malaria, a 54-year-old male informant had to say:

I know that malaria can be treated by a doctor. For me, it had been recurring for 10 years, from 1991-2002. Even though the doctor helped decrease it, it still couldn't get cured from year to year. So I treated it myself in indigenous way. I mix chickpea and garlic at night and leave it till morning. Before taking any meal (in an empty stomach), I eat that in the morning. After taking that for seven consecutive days, I'm now free from malaria since 2002, it didn't reoccur.

Despite the widespread descriptions of home remedies for malaria, most respondents also indicated that they would go to the modern biomedical center if the disease became worst as stated by one female participant:

...for malaria..... if the home remedies don't cure it we go to the clinic; it's only doctors that can get it- [female, 54, KI]

The other most common health problem articulated in all male and female focus groups was *Mich* (acute febrile illness followed by some wound around the mouth of the patient). All participants of focus groups were familiar with the most frequent symptoms of *Mich*.

Among the home remedies, used to manage *Mich* included; inhaling a steam from hot metal, inhaling the peelings of the leaf called *Haregesa* (*Zehneria scabra*).

Many of their medical choices for the management of this illness were limited to home remedies as described by one female participant:

Women get `Mich` in different ways. For example if we go out on the sun after baking injera, flat bread, we will catch Mich. And if we grind berbere/ red paper/ or shiro/ roasted and powdered pea seed/ and walk on the sun, we will catch `Mich`..... When this happens, we inhale a steam after boiling water. We bring very hot clay and put water in it and then we inhale the steam. Also for common cold, we mix orange, ginger, garlic, black cumin and boiled water. Then we inhale the concoction and drink it. We feel better in the end. If we don't feel better after all this, we will go to the clinic [female, 62, KI].

Also a 67-year-old male discussant went on further to state that he used home remedies to cure *Mich* and flu, but if an ailment persists he will go to modern medicine:

*When the person works a lot and smelling foul things, he /she would sweat then that person would catch Mich. Regarding the symptom the patient body would feel like it's being electrocuted, sweating and aching all over his body. The management includes different medicinal plants like, Haregesa, Ademselala (?*Ocimum* sp.), kur hareg (*Momordica foetida* Schumach), White Eucalyptus and Damakese, you cut the leaves of these plants and boil them in one pot, then you cover up and inhale the steam three times, after that the person will sleep and it comes out through the sweat. You apply this in the evening and shower every morning, and will be cured. If he does not feel better, he will have to go to modern medicine.*

Discussions

This section will discuss the main research findings and their implications for the popular medical knowledge possessed by the *Tehuledere* community regarding the management of health problems at home. List of the key findings include: The functioning model of the popular healing system within primary care, factors influencing decisions to seek popular healing as health-care options, how such knowledge and skill move from one generation to the other, followed up by management strategies and pluralistic approaches.

Home remedy use is a widespread self-care practice among these study participants. This study contributes to our understanding of the types of ailments and symptoms that are treated with home remedies among *Tehuledere* community. Some studies in different part of Ethiopia proved high demand of popular healing using home remedies (7, 11). Moreover, the study revealed that the elders and non-literate were observed with the preferences of popular healing. A similar finding was reported in different parts of the country where non-literates and older residents are significantly more likely to use home remedies than literate and younger people (23, 24). A study conducted in rural Tanzania also showed that age and education were the main factors that influence the choice of healthcare using home remedies (25). In contrast to the above findings other studies indicated that age and educational status were not the factors for the use of popular healing using home remedies (26).

It is contended, in any case, that even with such detailed analysis, it would still be difficult to draw broad generalizations in regards to the extensive variety of unobtrusive considerations made by local people in figuring out what specific moves to make in overseeing specific ailment at home. Indeed, the typical preface to informants' responses to this inquiry was: 'Everything relies on the type of illnesses'. Thus, the following analysis can only endeavor to provide a broad picture of

the common strategies employed by local people in light of their own depictions.

Our findings show that among the *Tehuledere* communities, like people in many regions of Ethiopia and elsewhere, management of common health problems using home remedies co-exist with the bio-medical health care systems (12, 14, and 27). People either may use medicine from popular healing system exclusively or use medicines from multiple systems concurrently for various reasons.

There are ranges of variations in medical systems of different societies for the differences of opinions in dealing with health care options. Yet, medicinal frameworks offer key components in that they have some kind of the theory of illness causation, a system of diagnosis, and techniques of appropriate therapy (28). Similar to Foster's explanation, in *Tehuledere*, the participants' use of home remedies for ailments results from failure to maintain equilibrium within the body or ailment caused by natural causes. The mending may likewise be performed by a single person with the assistance of his/her relatives in the case of popular medical practices (28).

Furthermore, pluralism in medicine rotates around the varieties of health care systems. The classification could be made from different perspectives. But the principal reference is either their conceptions about the wellbeing and ailment while the other could be the degree to which state legislation, more favour to biomedicine, perceives their exercises with regards to the standard and valuable to the maintenance of wellbeing. The utilization of home remedial therapies in economically poor societies is related to poverty or lack of access to conventional medicine (29, 30).

In this study, participants use a varied approach in accepting health concepts and popular healing services taking into account their cultural interpretation of reality and perceived effectiveness of treatment. Like this study, other ethnographic studies have demonstrated that some ailments such as *khai mak mai* (fruit fever) are recognized by the people in North East Thailand as untreatable by biomedical wellbeing providers. Subsequently, fevers associated with being *khai mak mai* are dealt with by home remedies while biomedical wellbeing services are evaded and dreaded. The same study reveals that it is not only the local conceptualizations of illness that impede patients from biomedical health service but also the disappointment of biomedical practitioners failing understand patient concerns about *khai mak mai* and discrediting them (31).

In any case, this does not imply that patients evade and reject biomedical health care services. People evaluate the course of the treatment with popular healing

using home remedies and if there is no progress in the health of a patient, they may resort to biomedicine. In this connection, Pylypa also argues that culture does matter in health behavior, yet how it makes a difference is impacted by the convergences of socio-economic contexts, and cultural meanings as a function of broader contexts in which they are enacted. Thus, the contention or contrariness amongst biomedicine and popular healing practices could be negotiated.

It is important that, a small number of informants (n=4) indicated, either: (a) never having sought or received any biomedical care, relying mainly on popular healing using home-based remedies; or (b) inclination for biomedical consideration at the local health centre for all manners of illness, with very limited use of home-based remedies. One could expect that individuals who have never looked for biomedicine are likely to include older members of the community, who, given the relatively recent expansion of biomedical services into rural areas, may not be as accustomed to biomedicine as their younger counterparts. Two of the four informants in this group were, indeed, elderly women (older than 70 years), who expressed great faith in the efficacy of home-based traditional medicines. But the other two were considerably younger men (35 and 40 years).

Moreover, we understand from this exploration the functioning rural primary health care model was very similar with Kleinman (1980) culture system model. The participants described several ways in which the study communities influenced their views of actors in the healing process. First, popular agents (families, friends, and neighbors) were seen to play a direct role in facilitating healing of those perceived common ailments. Otherwise, the popular agents refer to the biomedical professionals if no progress was observed after treating with home remedies. Consequently, the pluralistic management strategy used by *Tehuledere* community is very similar to that of *Jimma* and *Harar*, Ethiopia (32, 33).

The study showed that blessing from God/Allah/ and casual observation from parents were the main source of knowledge for the popular healing agents, which were similar to the findings among the *Bertha* ethnic group (11). In various other studies conducted in Ethiopia, it was shown that family members are the major sources of knowledge of popular healing (7, 34). Since most of the study participants were Muslims, either home remedies was practiced as part of religious teaching among the community or most believe that the healing power of home remedies was more acceptable and effective when associated with supernatural power/ Allah/ (11).

The older woman participant who dreamed of her mother-in-law guiding her to the herb that would help a relative recommends that such knowledge, which the older woman had in her unconscious, was given to her by

her mother-in-law. Now that she herself was a mother-in-law, and was required to solve a similar problem in her own grandchild, the knowledge that had previously been suppressed in her unconscious surfaced once more in the dream (35).

As per the way of life, youths are by and large not seen as carriers of validated knowledge as such an ability comes with age, due to the amount of space and the length of time that is required for gaining experience. Since knowledge was conveyed by word-of-mouth among the older people, to question them was seen as being disrespectful (36). As the older focus group discussion participants that were close to the health care facilities and modern education were gradually losing their popular healing knowledge, the above increasingly became aware of a problem, because the knowledge was not replaced with a new understanding regarding the new approaches of biomedical care. The above presents an element of helplessness and passivity regarding either resorting to biomedical care, or remembering and applying popular healing knowledge when health problems emerge at home. It also means that the focus group participants' gradual integration of biomedical care into the home was occurring quite slowly, as they lacked the tools (i.e. an understanding and interpretation of the reasons for illness causation) to integrate such knowledge into their existing knowledge base (37). Similar to this study, other studies indicated that younger generation are less knowledgeable and underestimate popular healing values (23, 38).

Health care providers from the domain were classified as popular healing agents, although the indigenous peoples of the world challenged the notion, explaining that indigenous popular healing knowledge was always developing and changing (6, 7). Instead, they allowed the biomedical health care facilities to run their health needs. It was already highlighted in the literature that the promotion of indigenous popular healing knowledge was hindered by biomedical practitioners and modernization, as the need to conform to educational expectations and modern civilization norms became unavoidable (7, 8, 39). It appears that the participants of focus group discussions and key informants struggled to balance the new incoming knowledge of the modernization with their own interests in managing their health in the home.

Practical Implications for a Rural Primary Health Care Model: Understanding the study communities' practices of management strategies of health problems and ways of preventing diseases is helpful in designing good health promotion and disease prevention strategies (40, 41). Thus, popular healing or healing modalities using home remedies represents an important part of everyday health care system. Adults possess knowledge of popular healing and part of this knowledge is shared with other family members, relatives and friends. This lay sector of

healing is generally the first therapeutic intervention resorted to by most people across cultural groups before other alternative medical systems are sought for medical assistance (42). Popular healing is at the basis of what is referred to as the 'hierarchy of resort in curative practice'. The various layers of this hierarchy interact with each other since patients pass freely from one to the other. Since the 1974 Alma Ata Declaration on Primary Health Care, self-health care including using home remedies, has gained more recognition, and recent health policies stress the importance of individual responsibility for their own health, as well as community participation in health care.

The study communities saw some common health problems managed using home remedies, such as malaria and *Mich* in the home, as their domain and that of the village, which could serve as an asset that could be used in revitalising primary health care.

Consequently, some of the common health problems which could be managed at home and village were articulated by participants. They also articulated popular agents such as family, friends and neighbors are important in maintaining good health. We argue that mainstreaming health education and the primary health care delivery strategies should look at what people actually do and how it is done in terms of disease control and health promotion (39). We have to bear in mind that no health education and care solution is global in nature as what is effective in one system might not be effective in another. We must favor an open and free discussion with people as health professionals. We should not reject people's perceptions of home based managements of health problems if we want to keep communication between us.

This study showed that the *Tehuledere* communities have developed models of explaining health management at home, and therefore, adopted lifestyles and patterns of behaviour which are aimed at the attainment of higher levels of wellness and positive health states. Thus optimal primary health care could be achieved using locally available resources and skills. Popular knowledge of health care is therefore, the basis for self-sufficiency and self-determination (43).

Ethiopia is currently implementing primary health care under the first phase of the 5 years health and transformation plan. Comparing the management of the illnesses identified by this study with the contents of the essential elements of primary care, it appears that some aspects, such as managements of common health problems at home are contained in both biomedical and popular interpretations (40, 44). It is hoped that this category of health problems that was managed within the home situation, common physical ailments, and the paradigm of their managements be included to enhance

the rural health plan for the 5 villages of *Tehuledere Woreda* and beyond.

Conclusion:

Home remedy is the basic source of health care and plays pivotal role in primary health care initiatives that was devised in Alma Ata in 1978. People draw upon knowledge of home remedies they have gathered throughout their lives, applying them in ways that make sense to them, given their particular social context, to treat symptoms that they have experienced at multiple points throughout their lives. The authors conceptualized health problems to include common ailments such as malaria, fever, persistent cough, flu and abdominal cramp as each ailment was linked to a socio-cultural 'context' of the community. This is because managements of these ailments at home had great impact on ill-health of the study community. This health care strategy using home remedies included an effective prevention and treatment of common ailments which was related to the strengthening of the home.

The study found that the major factors for the demand of popular healing using home remedies include perceived illness causations, accessibility and culturally appropriate indigenous treatments and dissatisfaction with the treatment outcomes at bio-medical health-care institutions, and demographic and economic factors. For example, the high cost of bio-medical treatment was mentioned as an influencing factor for their decisions of treatment seeking resort to home remedies.

Regarding the challenges for the use of popular healing, the study found that the impact of modernization process, lack of proper documentation of popular healing knowledge, and the beliefs on youth seen as 'backward' were some of the major factors mentioned.

Nonetheless, the uneven and very slow distribution of cosmopolitan medicine, curative and preventive, does not restrain the people from using home remedies. The popular and biomedical systems are perceived as acceptable and viable therapeutic options, though both of them are viewed as having their own styles and limited healing capabilities. Actually, people have retained the age-old cultural beliefs because they are conceived as important heritages "to adapt and survive" as their predecessors did in the past. Even though provisions of modern medicine are increasing in the study areas people seem to lose their confidence in biomedicine and continue to live in the indigenous popular healing way. This can be explained by the expansion of biomedical facilities which were not societal and culture centered.

This situation clearly demonstrates that the country's health coverage through government sponsored health care programmes is still very limited and the contribution of home remedies seems to be potentially important. It actually demands critical evaluation and subsequent

utilization of the beneficial aspect of home remedies. Thus, there would be no polarization in the utilization of home remedies and modern medical treatment as long as people continue to use both services simultaneously or serially. In other words, medical pluralism will remain the only option for promoting the *Tehuledere* health care needs. This will help to ensure the optimal utilization of Ethiopia's limited resources.

So we argue that the full implementation of primary health care in the study communities must start with the acknowledgment and understanding of the popular healing systems of the indigenous peoples in the management of their health problems at home. So, documentation and investigating the use of home remedies that grow in the area is very important, as the local communities have an idea that, for every illness of a person born in a *Tehuledere* area, there is an existing home remedy.

This study suggests that there should be a clear plan as to how popular healing practices using home remedies can be supported within a health care systems approach.

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Competing Interests

The authors proclaim that they have no contending interests.

Authors' Contributions

MHK directed the focus groups, key informant interviews and participatory observation performed the coding, categorizing the emerged themes and drafted the original manuscript. TG and HB served as supervisor of all data collections, analysis and review of the original paper. MHK, TG, and HB all participated in the study design and data analysis. All authors read and affirmed the last original manuscript.

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