ADDIS ABABA UNIVERSITY
COLLEGE OF HEALTH SCIENCE
SCHOOL OF ALLIED HEALTH SCIENCES
DEPARTMENT OF NURSING AND MIDWIFERY

ASSESSEMENT OF TRADITIONAL MEDICINE UTILIZATION FOR CHILDREN AND ASSOCIATED FACTORS AMONG PARENTS IN TOLE WOREDA, SOUTHWEST SHOA, OROMIA, ETHIOPIA, 2017

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A THESIS SUBMITTED TO SCHOOL OF GRADUATE STUDIES OF ADDIS ABABA UNIVERSITY COLLEGE OF HEALTH SCIENCE, DEPARTMENT OF NURSING & MIDWIFERY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN PEDIATRICS AND CHILD HEALTH NURSING

JUNE, 2017
ADDIS ABABA, ETHIOPIA

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ABSTRACT

In many culture, traditional medicine used as one of primary health care refined over hundreds or even thousands of years. Historians from all around the world have produced evidence to show that apparently all primitive peoples used traditional medicine often in sophisticated way. In Ethiopia up to 80% of the population uses traditional medicine due to the cultural acceptability of healers and local pharmacopeias, the relatively low cost of traditional medicine and difficult access to modern health facilities.

Objective: The aim of this study was to assess traditional medicine utilization and its determinants among parents of children, in Tole Wareda, South West of Oromia, Ethiopia, 2017.

Method: A community based quantitative cross sectional study was employed among all parents who have children up to 18 years old. Data were collected using pre-tested structured interviewer administered questionnaire. The study was conducted among 267 households selected by systematic random sampling technique after pre assessment and numbering of <18 years children in the house hold. Both descriptive and inferential statistics were used to present the data. Finally, odds ratio, binary and multiple logistic regression were used to analyze the association between dependent and independent variables.

Results: It was found that 85.9% of parents had used TM for their children. Herbal medicine, massage and religious/prayer therapy were (34.4%), 55 (25.9%) and 25 (11.8%) used major therapies respectively. Monthly income found medium (500-850) [AOR: 0.25(0.08, 0.78)], cultural belief [AOR: 3.01(1.16, 7.83)], religious belief [AOR= 3.17(1.26, 7.93)] and duration of illness [AOR=3.11(1.07, 9.02)] were associated with parental traditional medicine use for their children in this study.

Conclusion and recommendations: Traditional medicine use is highly prevalent in the study area 85.9%. Therefore, the integration of traditional medicine as part of modern medicine should be strengthened. Community education and further research on efficacy and safety of TM should also be done.

Key words: traditional medicine; children; parents; Tole wareda; Ethiopia

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ACRONOMY AND ABRIVIATIONS

AOR	Adjusted Odd Ratio
ASD	Autism Spectrum Disorder
CAM	Complementary and Alternative Medicine
CDM	Consumer Decision Making Model
CI	Confidence Interval
DD	Developmental Delay
ENV'T	Environment
HEW	Health Extension Worker
HSES	High Socioeconomic Status
HTP	Harmful Traditional Practice
LSES	Low Socioeconomic Status
NCCIH	National Center for Complementary and Integrative Health
OMPs	Orthodox Medical Practitioners
OR	Odd Ratio
SBM	Socio-behavioral Model
SES	Socioeconomic Status
SPSS	Statistical Package for Social Science
T&CM	Traditional and Complementary Medicine
TBA	Traditional Birth Attendant
TCM	Traditional Chines Medicine
TM	Traditional Medicine
TMPs	Traditional Medicine Practitioner
UAE	United Arab Emirate
USA	United State of America
WHO	World Health Organization

1. INTRODUCTION

1.1 Background

Traditional medicine is "the sum total of the knowledge, skills, and practices based on the theories, beliefs, and experiences indigenous to different cultures, whether explicable or not. It is used in the maintenance of health as well as in the prevention, diagnosis, treatment of physical and mental illness." It includes the use of plant, animal and mineral based medicines, spiritual therapies, manual techniques and exercises, applied singularly or in combination (1).

The importance of traditional medicine as a source of primary health care was first officially recognized by the World Health Organization (WHO) in the Primary Health Care Declaration of Alma Ata (1978) (2) but the history of traditional medicine is as long as the history of human being in this world. For example, the medicinal herb, *Artemisia annua*, used in China for almost 2000 years and found to be effective against resistant malaria (3). Studies show that several countries in Africa, Asia and Latin America use TM to meet some of their primary health care needs (4).

Historical evidence shows that apparently all primitive peoples used traditional medicine. For example, in Nigeria Quinine from plant cinchona bark was used to manage the symptoms of malaria long before the disease was identified and from willow bark a garden aspirin tablet have been a popular pain killer for a longer than we have had access to tablet making machinery (5).

TM in Africa typically views sickness as the failure of complex social and spiritual relationships. Traditional practitioners are also responsible for re-establishing social and emotional equilibrium based on traditional community rules and relationships (6). However Africa's disease burden is growing rapidly, indigenous African medicine can bring affordable remedies within reach of millions who are unable to access modern care due to its cost or distance. It also provides an alternative for those who prefer, for many reasons, to be treated in a more culturally sympathetic and familiar way (7).

Ethiopia is one of the oldest nations of the world and has a rich history of traditional medicine and indigenous practices (8). For example in the early 16th century, a European and British traveler called Francisco and James Bruce reported the use of herbs as purgatives and anti-

dysentery, respectively, in Ethiopia. Medical text books written in Geez and even in Arabic in Ethiopia between the mid of the 17th and beginning of the 18th century prove that plants have been used as a source of traditional medicine in Ethiopia from time immemorial to combat different ailments and human sufferings (9).

Moreover, the strong social fabric and communal responsibility for the sick have always been basic tenets for Ethiopians (8). Studies estimated that some 80% of Ethiopians are relying on traditional healers and remedies for their health care needs which is vastly complex and diverse and varies greatly among different ethnic groups (10).

Even though herbal medicinal products are frequently used and regarded as 'natural' products, they can also cause adverse drug reactions as well as adverse interactions with other medications (11).Therefore, describing prevalence and factors associated with childhood traditional medicine utilization helps to improve child health practice and identify the possibilities of integrating traditional medicine (TM) with modern practice to reduce child mortality.

1.2 Statement of Problem

Traditional medicine is the main source of health care for millions of people in the world. There are many pieces of evidences that, the use of traditional health care systems are still common not only in Africa but also across the world (12). Study showed that in addition to modern biomedicine, traditional medicine provides healthcare to 65-85% of the world's population in developing as well as developed nations (13). For instance, the ratio of traditional healers to population in Africa is 1:500 whereas the ratio of medical doctors to population is 1:40 000 (14). Similarly, about 80% of the population uses traditional medicine for primary health care in Africa and Ethiopia (1).

Traditional medicine in Ethiopia is widely used as primary source of healthcare. Particularly, in the rural areas and among the urban poor, herbal medicine is the only form of health care and a sick person consult regular physicians as a last resort (10). It is, thus, traditional medicines have the benefit of substantial prior clinical use as well as stronger cultural associations. This can provide evidence of safety and efficacy and result in traditional medicine being more readily accepted by some populations (14). Despite the fact that traditional medicine plays an important role in Ethiopian society, the knowledge and understanding about the extent and characteristics of traditional medical practices are limited. The national health system has given less attention to studying therapeutic potentials as well as adverse effect. All types and their determinants have also not been thoroughly studied scientifically at the community level (15).

Traditional &Complementary Medicine practices vary widely from country to country depends on their culture, understanding and accessibility of conventional medicine (14).There are several traditional medical practices in Ethiopia. These include minerals and herbs, surgery related practices and/or religious rituals like *tsebel* (Holy Water) and communal prayers are the commonly practiced TM (16). These are not necessarily practiced as a last resort but rather as the preferred alternative in some cases. Vitally, Ethiopian traditional medicine is concerned not only with the curing of diseases but also with the protection and promotion of physical, spiritual, social, mental and material well-being (8).

There are various reasons for the growing use of TM/CAM. The reason attract majority of people in developed countries its natural product and congruent with their own values, beliefs, and

philosophical orientations toward health and life (17). Whereas, in Africa and some developing countries like Ethiopia the practice of TM is mainly due to its closeness, easily affordable, readily available, cheap, and consistent with indigenous cultures or ethnic groups. Yet, its effectiveness needs proving (14, 18).

Traditional medicine practices in Ethiopia are not uniformly practiced that there are considerable diversity and significantly between regions. They are also not governed by standard policies and regulations rather associated with cultural beliefs. Sometimes, it forms an integral part of a community's identity and value, That is the reason why it is difficult to regulate through nationwide framework concerning its safety and effectiveness due to different medicine categorization and definition (14, 15, 19).

As such the prevalence and utilization, as well as factors determining traditional medicine for all category of population in general and pediatrics in particular are not adequately studied and documented. Therefore, the aim of this study is to assess the prevalence and determinants of traditional medicine use through a case study of the parents of children in Tole Wereda, Oromia, at community level.

1.3 Significance of Study

In Ethiopia, the prevalence of traditional medicine was around 80%, however, studies conducted on the utilization of traditional medicine for children at the community level are limited. Therefore, determining the magnitude and rational of childhood traditional medicine utilization has paramount importance. The current study has the following specific significance.

- It can be used by pertinent professionals as a baseline to deliver health education to the community at the facility level.
- It can also serve as an input for policy makers to regulate and promote a safe and effective use of traditional medicine through the regulation, research, and integration of traditional medicine products, practices, and practitioners into the health system as appropriate.
- It also provides baseline information to future researchers for any national (large study) to be done at health institutional level.

2. LITRETURE REVIEW

Traditional medicine(TM) tends to be practiced outside of allopathic medicine (also known as biomedicine, conventional or Western medicine) (20); whereas complementary and alternative medicine(CAM) includes traditional medicine, as well as modern practices developed outside of indigenous communities. Sometimes the two terms are used interchangeably, or TM may be referred to as CAM when it is adopted outside of its traditional culture (21). Some of the best-known TM systems include traditional Indian (Ayurveda) medicine, traditional Chinese medicine (TCM), and traditional Arabic (Unani) medicine (20).

Traditional medicine in Africa is founded on indigenous, biological and medico-spiritual theories and concepts of the human body; the role of the individual as a member of the community; and their relationship with the community, with the environment and with nature (7). Likewise, healing in Ethiopian traditional medicine is not only concerned with curing of diseases but also with the protection and promotion of human physical, spiritual, social, mental and material wellbeing , ways are also as diverse as the different cultures (6).

2.1 Practice of traditional medicine utilization of parents for their children

World Health Organization (WHO) declaration at Beijing in China stated that about 85% of people worldwide seek traditional health practitioners as first choice before Western Medicine (22). WHO reports that globally around 3.9 billion people are making use of traditional medicine (23). Over 100 million Europeans are currently T&CM(traditional and complementary medicine) users, with one fifth regularly using T&CM and the same number preferring health care which includes T&CM (24).

Globally, the rate of using CAM in children varies between 9–73% (17). Nearly 12% of American children (younger than age 18) have used or been given a complementary health product or practice (25). In Netherland, 37.6% of gastrointestinal patients are turning to CAM for their child and even more will do so when their child is not helped adequately by conventional medicine (26).

According to National Center for Complementary and Integrative Health (NCCIH), for children, complementary health approaches were most often used for back or neck pain, head or chest

colds, anxiety or stress, other musculoskeletal problems, attention-deficit hyperactivity disorder, and insomnia. In children with other chronic conditions, CAM use is 44% in those with epilepsy 54% with sickle cell disease, 59.6% with diabetes mellitus, 64% with rheumatoid arthritis, 67.6% with attention deficit and hyperactivity and 64% with other special healthcare needs (17).

Its use is more prevalent in China and India where the percentage use represents a very large population in absolute terms. Chinese TM is a point of pride for the Chinese Government. There is widespread belief that it works and it is part of the history, culture and politics of the country (27). Furthermore, both in China and India many physicians have training in traditional medicine and use traditional remedies as part of their treatment recommendations (14, 28). For example traditional Chines Medicine used for treatment of infants, toddlers and children revolves around acute conditions. The most common conditions for infants are colic, fever, cough and vomiting (29).

Similarly, a study in Korea on university hospital indicated that parents or caregivers 51.5 % have ever received CAM for their children, and the current CAM utilization rate was 19.0 % (110 patients). The rate of current CAM usage was significantly high in epilepsy patients (30). In addition, study in Ajman**,** United Arab Emirates (UAE), shows that about 73(53.6%) of parents reported the utilization of CAM among their children (31)

In Africa, the importance of traditional medical practitioners (TMPs) is high as manifested inthe relative ratios of TMPs and orthodox medical practitioners (OMPs) in relation to the whole population. . For example, in Ghana, a census held in September 2010 showed that there were 400 people to every TMPs compared to a ratio of 1: 17,733 for OMPs. In similar fashion, in 2011, the ratio for TMPs to people remained the same whilst that of OMPs improved to 1: 11,500. The TMPs have, therefore, proven to be a large and influential group in primary health care and an integral part of the African culture and are required for the health of its people (22).

In Ethiopia up to 80% of the population uses traditional medicine due to the cultural acceptability of healers and local pharmacopeias, the relatively low cost of traditional medicine and difficult access to modern health facilities (32). Moreover community based study done in Amhara region Mota town indicated that, 88.2% had used at least one form of traditional medicine for their children in the last 12 months (4).

2.2 Type of TM use for their children

Traditional &Complementary Medicine practi[redacted]y widely from country to country with certain practices (sometimes called modalities) regarded differently depending on the culture, understanding and accessibility of conventional medicine (14). For example in Netherlands herbal remedies (46.0%), food supplements (36.0%), manual therapies (23.7%), and homeopathy (21.9%) were the most commonly used CAM modalities among pediatrics patients and higher specific CAM use in patients with Inflammatory Bowel Syndrome (OR: 1.86 [95% CI: 1.04–3.32]) and food allergies (OR: 4.13 [95% CI: 1.37–12.45]) (26).

Among cerebral palsy pediatrics patient in the university medical center in Ann Arbor, USA, the most common forms of CAM were massage therapy (25%), aquatherapy (25%), and hippotherapy (17%). The outcome of the CAM therapy was considered positive by 56% of the families who used it. About 60% of the families who used CAM used multiple methods (33).

Study in Ajman**,** UAE, shows that nearly 80% of the parents reported giving their child herbal medicine among the various forms of CAM therapies. This was followed by dietary supplements, prayer, and homeopathy and massage therapy (31).

African Traditional healers are generally divided into two categories – those that serve the role of diviner-diagnostician (or diviner-mediums) and those who are healers (or herbalists) (34). Traditional healers such as herbalists, midwives and spiritual healers constitute the main source of assistance for at least 80-90% of rural population with health problems in developing countries (35). The herbalists are an important national health care resource in South Africa and they are potentially valuable partners in the delivery of health care (36).

In Ethiopia, the traditional health practitioners are categorized into herbalists, bonesetters, traditional birth attendants, spiritual healers, diviners and magicians. Traditional medicine is used by a large segment of the population in Ethiopia. It is one of the most important ways of making livelihoods for those who have no other means of income and it is also the most important way of getting relief from various diseases. The use of traditional medicine is increasing compared to the past because modern medicine has become very expensive and beyond the reach of most compatriots (37). Both men and women are known to practice medicine from their homes. It is

most commonly the men that dispense herbal medicine similar to an out of home pharmacy. Traditional healers extract healing ingredients from wild plants, animals and rare minerals (38). According to study done in Mota town, northern Ethiopia, traditional medicine use for their children reveal herbal medicine 66.9% followed by religious/prayer practice 52.8%, massage 22.8%, bone settler 21.8%, tooth extractors 10.8% and 4.2% have mentioned as they used other forms of traditional medicine named Yehareg ressa, Salehu dress and Yebuda medhanit in their culture (4).

There was evidence that certain plants had high medicinal value (39). Long-term of exposure to some herbal remedies may cause toxicity in Children. Particularly herbs that contain chemicals whose carcinogenic effects may not become manifest until a long latency period has passed (40). In addition, certain TMPs related to surgery were described as Harmful Traditional Health Practices. Some of these were: uvulectomy, bleeding by puncture, cupping, cauterization, scarification and milk tooth extraction. Others are provision of mineral substances and medicinal plants and animal products that were not supported for safety and efficacy. There might also be many unrecognized TMPs that could influence the health of community in different ways (41). Similarly, a study conducted in western Ethiopia revealed that Harmful Traditional Health Practices like butter feeding and an uvulectomy practice were affecting the health of children under the age of five years (42).

2.3 Reason for Parental Traditional Medicine Use for Children

Even though recent developments in molecular biology and physiological chemistry have greatly improved the understanding and treatment of diseases, a large segment of the population still depends on herbal medicine as the preferred form of health care due to different reason (43). Studies have shown that this high use of herbal medicines may be due to accessibility, affordability, availability and acceptability of traditional herbal medicines by majority of the population in developing countries (44).

2.3.1 Socio-demographic Characteristics of Patients

The use of CAM and dietary supplements was found to be fairly common in children and adolescents, especially those needing frequent medical care and hospitalizations for chronic conditions (45). Study shows that, in USA, among pediatrics CAM user, (16.4%) were

adolescents of 12 to 17 years of age and (14.7%) had parents with higher educational levels (46). Also among children in Taiwan, girls of age between 10-18 years are more user than other (47). Again another study in USA indicates that, mothers with a college degree had a greater tendency to use CAM for their child than those without, (***p***=0.01) fathers of children who used CAM were older than fathers of those who did not (***p***=0.04) Child's age (younger) (33).

In Netherland parents the use CAM associated with age <11 years OR (2.7(1.4-5.4), 95% CI). In Korea among patients who visited the pediatric rehabilitation clinic, 1–6-year-old and 7–12-year-old children compared with 13–19-year-old children were OR 3.14 (95 % CI 1.31–7.53) and 3.34 (95 % CI 1.64–6.79) respectively. The age showed statistically significant differences between the patients who were administered CAM and those who received other rehabilitation therapies ($p < 0.0001$) (30).

According to research done by medical investigation of neurodevelopmental disorder in university of California, family use CAM in both Autism Spectrum Disorder (ASD) and Developmental Delay (DD) children, was nearly twice as frequent when at least one parent in the household had completed college than families without a Bachelor's degree to utilize CAM in general; therefore, those with completed college and those with no Bachelor's degree were (44.9% versus 26.9%); associated with educational level AOR (1.63; 95% CI 1.29, 2.08) (48). Opposite to other, Study done in Ajman**,** UAE, shows that frequency of CAM therapy was similar among parents with different education status (31).

Study conducted in Finland shows that women were more likely to be 'herbal drug users', homeopathy use (OR = 1.48) and overall CAM use (OR = 1.49); Higher education has a positive effect on CAM use; herbal drug use (OR = 2.03) and consultation with CAM providers (OR = 2.49) however children from poor households tend to consult CAM providers less (49).

Contrarily the children's financial background seems to have only a weak impact on CAM use in Germany, but education significantly predicted the use of several CAM modalities. Children from the level with the lowest maternal education showed the lowest prevalence of herbal drug use, overall CAM use, and consultation with CAM providers (50).

Study reveals that, among children in Taiwan, high prevalence of traditional and complementary medicine visits was associated with higher socio-economic status (HSES). That means high SES

adolescent girls more likely to visit TCM practitioners than low SES girls, 5.9% and 4.3% respectively. General health care and public health care utilized by people of LSES is cheaper health care option. Those who Live urban areas, heads of house hold older and have more children are less user of traditional and complementary medicine (47). But the study conducted in Canada among pediatric patients use of CAM which was common at both urban and rural (51).

In contrast to other countries studies done in Africa indicated that use of traditional medicine was related with low economic status. For instance, one of the main reasons Cameroonians still favor traditional medicines is economic: They turn to traditional medicine because they cannot afford pharmaceuticals or conventional medical care. Today, 7% of the average household health budget goes to traditional medicines. Nearly twice as many people from poor households rely on traditional medicine as do people from rich households (6).

Similarly a study done in Sokoru District, Ethiopia states that, local poor people who had little access and couldn't afford the cost of modern medications had used traditional herbal medicine in their primary health care systems (52). Again study done in Mota Town, Ethiopia indicates that the reason to use traditional medicine for their children are, 34.4% cheap in price, 31.5% having low income (4).

2.3.2 Socio-cultural Reason

Harvard medical school revealed that, the reason for adults to seek CAM may hold values systems that emphasize natural, holistic, and organic products. They often prefer a humanistic, unhurried approach to their medical care. They may hold specific, culturally dictated therapeutic preferences. Researchers found that they demand CAM in the context of self-diagnosis and self-treatment. They may be generally suspicious of conventional allopathic medical authority or technology (40).

According one pediatric CAM utilization studies in Canada it was self-assessed as effective for most types of CAM. Most adverse events were reported as infrequent and minor. Family was a common source of information regarding CAM use, but patients and parents express considerable interest and trust in obtaining advice about CAM from their health care team. In addition, many cultural groups may use CAM because of cultural values and beliefs (51). Study in Ajman, UAE, shows CAM was recommended by family members in 48% of parents (31).

As opposed to relatively modern CAM practices, traditional medicines have the benefit of substantial prior clinical use as well as stronger cultural associations. This can provide evidence of safety and efficacy and result in traditional medicine being more readily accepted by some populations (19).

Nigerian society where the husband has the sole decision making power over his wife and child in health matters. Factors that influence the utilization of maternal and child health care were 27.3% their husband's persistence, 14.6% perception of the services provided, 23.0% Religious beliefs and 23.9% accessibility account. Gender is another important factor determining the utilization of health care services (53).

Also healers understand the social problems and cultural experience of their communities: "They use this knowledge in their diagnosis to better treat the invalids, to whom they are very close. If a sick person tells [the healer] that he was beaten all night in his bed, the indigenous healer will understand him and help him chase away the spirits" (6).

The study done in Jimma zone Ethiopia reveal that the local people have been seeking for traditional herbal medicine even in preference to modern medications and also in connection with the community's belief that they would not get better medications for some of the diseases in modern health services (52).

In Mota Town Ethiopia, reasons to use traditional medicine for their children are, 47.5% accessibility to traditional medicine, (37.8%) difficulty in accessing health care facility and 4.7% mentioned lack of time for emergency problems and cultural acceptability of traditional medicines (4).

2.3.3 Perception of Illness/Sickness

Study shows, in USA, among children of CAM user (23.8%) had six or more health conditions together (46). Again another study medical center in Ann Arbor, USA indicated that children with quadriplegic Cerebral Palsy more commonly exposed to CAM (OR of 2.5) (33). Similarly in Korea among patients visited the pediatric rehabilitation clinic with longer disease duration (≥48 months) used CAM when compared with the group with shorter disease duration was OR, 3.36 (95 % CI 1.71–6.59). This indicates the disease duration was statistically significant differences

between the patients who were administered CAM and those who received other rehabilitation therapies ($p < 0.0001$) (30) in Korea.

Study in Ajman**,** UAE, shows that parent who had used CAM for the first child 73(53.6%), also reported to use CAM in their subsequent children 2nd child 71(52.2%) and 3rd child 71(52.2%)). The common clinical indications reported by the parents for the use of CAM therapy were gastrointestinal disorders and respiratory disorders followed by fever, and dermatological conditions (31).

There was evidence that use of TM is high in Northern Tanzania. It was used by people of all incomes in both urban and rural settings, and the most common reasons for use were daily symptomatic ailments and chronic diseases (54).

The use of herbal medicines increase even in developed countries because of the belief that herbal remedies are safe because of their natural origin and have little or no side effects (55). In Ethiopia study reveal that utilization of traditional medicine in children is also due to (4.5%) non-curable diseases with modern medicine and cultural acceptability (4).

2.3.4 Health Care Experience

Several studies show that parents who use CAM for themselves are more prone to use CAM for their children. In USA, adult respondents who were asked about use by pediatrics in their household, the use of alternative therapies was greater among children who had parents who used CAM was (23.9%) (46). Similarly, among children in Taiwan CAM uses by parents and care givers are associated with using for their children (31). Again another study indicates the parents who used CAM for themselves were more likely to try CAM for their child when compared to nonuser (70% versus 47%, OR 2.1), and were much more likely to be satisfied with the outcome in relative to nonuser (71% versus 42%, OR 3.5) (33). In contrast to other study in Ethiopia shows parental use of traditional medicine for themselves was not significantly associated with used for their children(4)

According to largest pediatric CAM utilization studies in Canada, Parents' reasons for seeking care for their children from CAM providers included, in decreasing order of frequency, word of

mouth, particular treatment was considered effective, fear of drug adverse effects, dissatisfaction with conventional medicine, and the need for more personal attention (51). Similarly Netherlands parents use CAM for their children due to severe adverse effect of modern medicine (OR 3.5 (1.5-8.2) 95% CI)) and low perceived effect of modern medicine OR (2.2(1.2-4.1) 95% CI) (26).

In UAE, Ajman, from those who used CAM for their children about 47% parents reported good results and 30% excellent results with CAM in their children. Among users 76% reported either family or friends as their primary source of information (31).

There is evidence that adults seek CAM for their expression of deep dissatisfaction with conventional medicine (40). However for most of Africans, treatments are not made available widely enough due to the high cost of western modern medicine. This may imply that many rural African communities are not able to afford the high price of pharmaceuticals and in some instances, they cannot readily obtain the medicine even if they were affordable; therefore, TMPs remain their only means for medical help (22).

Study in Mota, Ethiopia shows that parents or care giver need traditional medicine than modern medicine for the purpose of, 47.2% its effectiveness, (20.2%) fear of side effect, 15% referred by someone else, (11.3%) satisfaction with TM, (6%) dissatisfaction with modern medicine and (3.9%) less efficacy of modern medicine (4).

Due to incomplete coverage of modern medical system, shortage of pharmaceuticals and unaffordable prices of modern drugs, the majority of Ethiopian still depends on traditional medicine. The problem of ensuring the equitable distribution of modern healthcare has become more serious, as the gap between supply and demand has continued to widen. There is a considerable global interest in tapping the accumulated knowledge of traditional medicine, and therefore, researches are being carried out in many countries with the aim of increasing the use of traditional medicine to the welfare of the human population (56). Hence, the present study will be initiated to investigate the traditional medicine utilization and their determinant factor children and associated risk factor in Tole woreda, South West Ethiopia.

2.4 Conceptual Framework

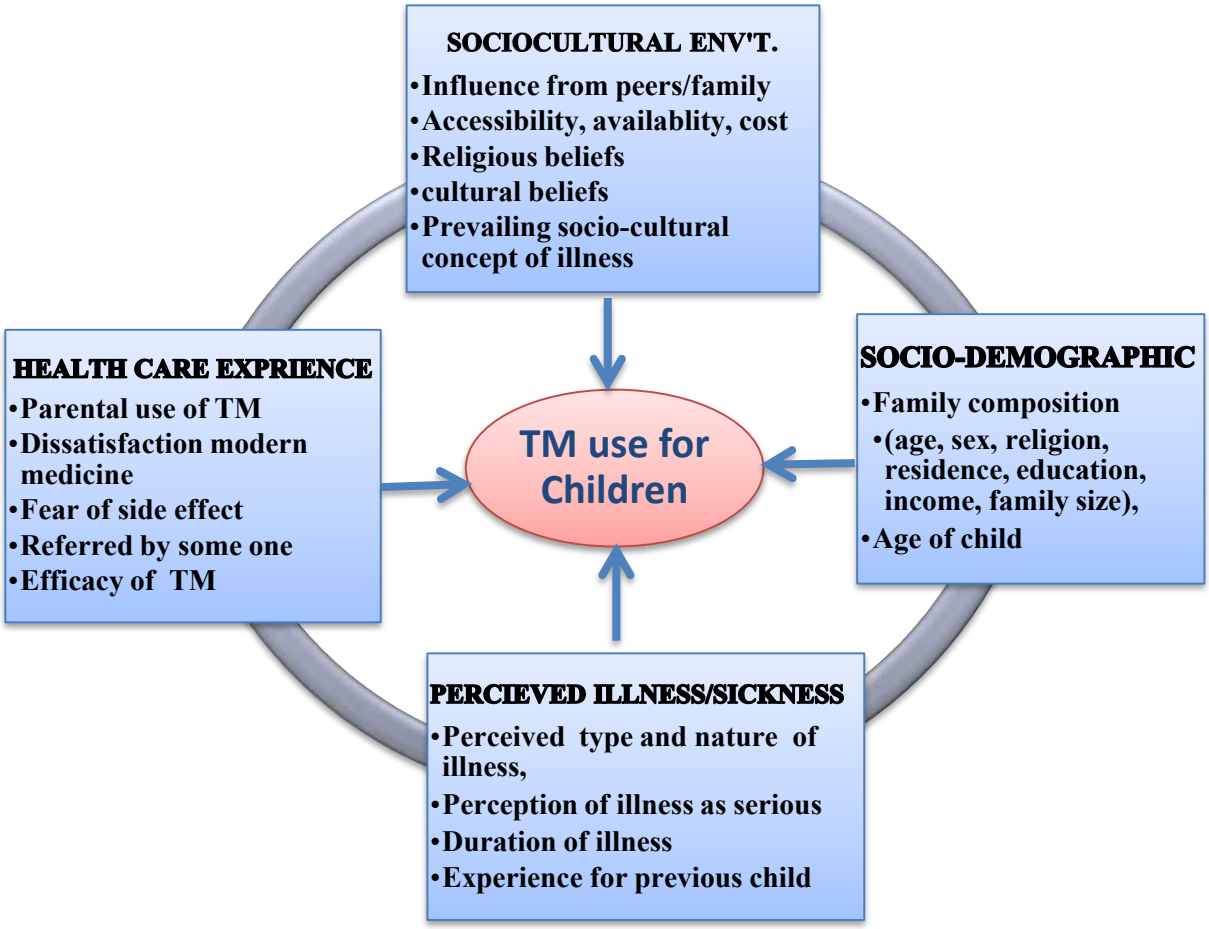


Figure 1: Conceptual frame work modified from consumer decision making model (CDM) and Andersen's socio-behavioral model (SBM) (57-59).

3. OBJECTIVES

3.1 General Objective

To assess the traditional medicine utilization for children and associated factors among parents of children in Tole Woreda, Southwest Shoa Oromia Regional State, Ethiopia, 2017.

3.2 Specific Objective

- To identify the types of parental traditional medicine use for children;
- To determine the prevalence of parental traditional medicine use for children;
- To determine the reasons for parental traditional medicine use for children.

This research was expected answer the following key questions:

1) What are the types of traditional medicine practiced by parents for their children in Tole woreda?
2) What is the prevalence of traditional medicine uses for children in the study area?
3) What are the reasons of parents to use traditional medicine for their children?

4. METHODS AND MATERIALS

4.1 Study Area

The study was conducted in Tole Wereda which is found in Southwest of Shewa, Oromia Region of Ethiopia. It is bordered on the Southwest by Kokir, on the West by Becho, on the Northwest by Elu, on the North-east by the Awash River which separates it from Alem Gena, and on the East and South by Kersana Kondaltiti. The major town in Tole is Bentu Liben. It is 80km away from Addis Ababa, 22 km away from Jimma- Addis Ababa road at 60 km Distance from Addis Ababa to Southern. The district has a total of 26 Kebeles, two urban and 24 rural. It has around 82,377 populations from which 44,653 are male and 40,724 female. It has 15,078 house hold and 13,535 are children under 5 years old. Majority of the people (90.87%) are orthodox Christians. The district has 4 health centers, 24 health posts, 7 private clinics and 2 private drug stores (60).

4.2 Study Design

A community based quantitative cross sectional study design was employed to assess traditional medicine utilization for children and its determinants among parents in Tole Woreda on March, 2017.

4.3 Study Period

The data was collected on March 2017 for 5 consecutive days.

4.4 Population

4.4.1 Source Population

All parents, who had children <18 years of age who lived in Tole woreda.

4.4.2 Study Population

All randomly selected parents who had <18 years of old children and who fulfill the inclusion criteria was included.

4.5 Inclusion and Exclusion Criteria

4.5.1 Inclusion Criteria.

- Parents who were residents of Tole Wereda for at least six months
- Had <18 years old children who lived with them at least for six months
- Available at the time of data collection.

4.5.2 Exclusions Criteria

Parents who were seriously ill or unable to give the required information during data collection period were excluded.

4.6 Sample Size and Sampling Procedure

4.6.1 Sample Size Determination

The sample size for this study was calculated using single population proportion formula considering the following assumption: prevalence of traditional medicine use for children 88.2% (4), with 5% marginal error, 95% CI (α =0.05). Based on this assumption 162 sample size calculated as follows:

$n = \frac{(z\alpha/2)^2 * p * q}{d^2}$, $\boldsymbol{n = \frac{(1.96)^2 * 0.88 * 0.12}{(0.05)^2} = 162}$ Where:

n= the required sample size

z= standard score corresponding to 95% CI

p= prevalence of parental traditional medicine use for children

q= 1-p

d= the margin of error 5%,

Design effect assumed to be 1.5, owing to the use two sampling technique (simple random method and systematic sampling method) supposing that adequate sample size was obtain. Therefore 162*1.5=243 and 10% of none response rate 24.3 and a total sample size of 267

4.6.2 Sampling Procedure

In Tole Wereda, there were 26 kebeles. Of which 5 kebeles was selected using simple random selection method and participant involvement was selected based on systematic random sampling

technique depending on presence of <18 children in the house hold by pre data collection assessment and numbering. For example for Bantu-01 kebeles, each house hold selected based on the numbers of house hold in that kebeles and sample size calculated proportionally for that kebeles ($k = \frac{N}{n} = \frac{1073}{85} = 12$) where k is sampling interval, **N**= total number of households having <18 years old children and n is the required sample size). So after random selection of the first household, every 12th households were selected. When this was not possible, the immediate next was considered.

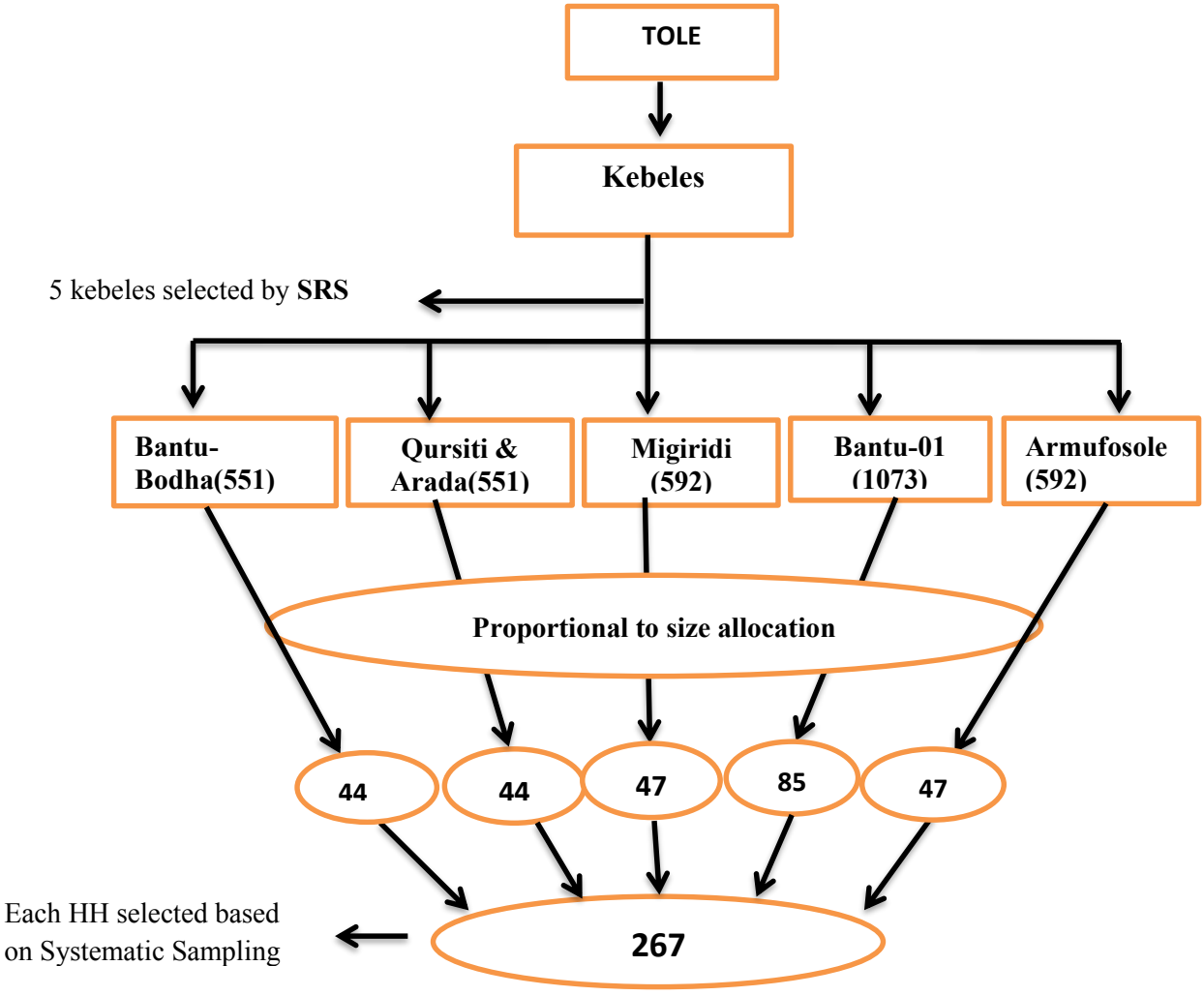


Figure 2: Schematic presentation of sampling procedure

4.7 Data Collection Procedure

4.7.1 Instrument and Measurement

The data collection tool was structured interviewer administered questionnaire. Either the father or mother of the children was interviewed. But priorities were given for the mothers because mothers are close to their children than fathers. When the mother was not available by any means, the father was interviewed. The questionnaire was adapted from previous researches done on similar topics (4) and was translated in to the local language (Afan Oromo). Consistency and equivalency were checked by translating the Afan Oromo version back to English by another individual who was fluent in both languages. The questionnaire consists of six parts. The first part comprised of socio demographic characteristics of parents. The second part consisted of traditional medicine practice. The third part consist type of TM. The fourth part consist the socio-cultural environment, the fifth part perception of illness or sickness of the parent and the six part of the questionnaire regarding health care experience.

4.7.2 Data Collectors

Ten health extension workers (HEWs) and five BSc. nurses for data collection and two supervisors were trained for one day before data collection time. The sessions of the training include purpose and objectives of the survey, the content of the questionnaires, meanings of each question and how to approach the respondents and conduct the interview. Data collectors were take responsibility to interview either parent of children (primarily the mother), record the result in a consistent manner and finally submitted the result to the investigator as scheduled.

4.7.3 Data Quality Control

Data collectors were trained on how to interview and record the responses. They were assigned out of their respective kebeles to minimize information bias. In order to assess the validity and reliability of the instrument, clarity of the questions and respondent reaction to the question and interviewer, pre- test was done in another kebeles at 5% of actual respondents. After the pre- test unclear questions were collected and interviewers and investigator adjusted themselves as required. But the data from the pre-test was not included in the analysis. When the head of household (mother/father) was unavailable during data collection period, repeated trials until

three times was done. During the data collection time, regular monitoring and supervision of the overall activity was done by the supervisors and principal investigator to ensure the quality of data.

4.8 Data Processing and Analysis

The data was coded, entered and cleaned, in Epi data version 3.1 and transferred to SPSS version 21.0 for analysis. Descriptive and inferential statistics were used to present the data. Descriptive statistics like frequency and percentage were used to summarize the socio-demographic characteristics of the study participants. And inferential statistics like odds ratio, binary logistic regression and multiple logistic regression were used to determine if there is association between dependent variable (traditional medicine utilization for children) and 23 different independent factors. Statistical significant variables in binary regression analysis i.e. (p-value <0.2), were entered for multivariate analysis. And P value of less than 0.05 is considered as significant at 95% CI.

4.9 Variables

4.9.1 Dependent Variable

- Traditional medicine utilization for their children

4.9.2 Independent Variables

- Socio demographic characteristics of parent
    - ✓ Predisposing factors like family composition (age, sex, religion, economic level, education, family size and resident), age of child
- Sociocultural environment (accessibility, availability, cost, influence from peers/family, religious belief, cultural beliefs, prevailing socio-cultural concept of illness)
- perceived illness or sickness (perceived type and nature of illness, perception of illness as serious and experience of using for previous child)

- Health Care Experience parents (parental CAM use, dissatisfaction with modern medicine, efficacy of CAM and fear of side effect of modern medicine)

4.10 Operational Definitions

Children: are those who are <18 years old

High income: more than 1500 Ethiopian Birr/month.

Low income: less than 500 Ethiopian/month

Medium income: between 500 -1500 Ethiopian birr/month

Parent: father, mother or/and guardian who nurtures and raises child

Traditional healers/practioners: health care providers who are not trained in modern medicine science.

Traditional medicine utilization: using anything used in the promotion of health, prevention of illness and treatment of diseases and not currently considered to be part of modern medicine but accepted in that community. It is not prescribed by health care professional and those that are not commonly used as a diet in that culture.

4.11 Ethical Consideration

Ethical clearance and approval to conduct this research were obtained from Research and Ethical Review Committee of Department of Nursing and Midwifery, School of Allied Health Sciences, college of Allied Health Sciences, Addis Ababa University. Permission to conduct the study was also requested from Tole woreda Administration. The ethical considerations were taken in to account throughout the study. Participants were informed as their participation was voluntarily and that they could withdraw at any time of the study. In addition, the objective of the study was verified to the participants. They were informed about the confidentiality of the data collected. For those who were volunteers to participate, written consents were obtained. At the end of the interview, participants were informed about TM use and associated potential effects.

4.12 Dissemination of Results

The result of this study will be submitted to Department of Nursing and Midwifery, School of Allied Health Sciences, College of Health Sciences, Addis Ababa University. The study result will also be submitted to Tole wereda Administration, South West Shoa Zonal Health District

and Oromia Region Health Office. Effort will be made to present the result in local or international conferences or meetings.

5. RESULTS

5.1 Socio-demographic characteristics

The survey included a total of 267 households/parents in voluntary bases with a response rate of 100%. Out of 267 respondents participated in this study, 172 (64.4%) were females. About 95(41.2%) of the respondents were within the age groups of 27-32 years old. The majority, 248(92.9%) were Orthodox religion followers. Most of them, 251(94%) of the participants, were married. The rate of illiteracy is so high that greater than half of respondents, 142(53.2%), can't read and write because they had not accessed to formal education at all.

It was found that about 85(31.8%) were living in urban areas with the remaining in rural. Some 136(50.9%) of the parents have three to four children. More than half of the participants, 151 (56.6%), have low monthly income (<500 birr/month). The socio demographic characteristics of the parents are presented in the table 1 below.

Table 1: Socio demographic characteristics of parents having < 18 years old children in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017 (N=267).

Variables	Frequency (n=267)	Percentage
Sex of the Family		
Male	95	35.6
Female	172	64.4
Age category of Parents		
20-29	76	28.5
30-39	129	48.3
40-49	45	16.8
≥50	17	6.4
Religion Affiliation		
Orthodox	248	92.9
Muslim	2	0.7
Wakefata	7	2.6
Protestant	10	3.7
Marital Status		
Married	251	94.0
Single	3	1.1
Widowed	6	2.2
Divorced	7	2.6

Educational status the Family		
No Read And Write	142	53.2
Read And Write	14	5.2
1st Cycle (1-4)	38	14.2
2nd Cycle (5-8)	44	16.5
High School (9-10)	16	6.0
Preparatory (11-12)	6	2.2
Tertiary Education	7	2.6
Number of children <18 years		
1-2	81	30.3
3-4	136	50.9
5-7	50	18.7
Monthly income of house hold		
< 500	151	56.6
500-850	46	17.2
851-1500	44	16.5
>1500	26	9.7
Residence		
Urban	85	31.8
Rural	182	68.2
Sex of a Child		
Male	151	56.6
Female	116	43.4
Educational status of child		
No read and write	223	83.5
Read and write	3	1.1
1st. cycle (1-4)	32	12.0
2nd cycle (5-8)	5	1.9
High school (9-10)	4	1.5

5.2 Prevalence of traditional medicine utilization for their children

The survey result showed that of the total 267 participants, 212 (79.4%) have ever used traditional medicine for their children. Thus, the total the prevalence of parental traditional medicine practice for children is 212 (79.4%). Of them 182 (85.9%) had used at least one form of TM for their children in the last 12 months. Based on this study about half (50%) of the parents obtained information about benefit and efficacy of the traditional medicine from their family members. About 16.0% of information source was neighbors (Table 2).

Table 2: Prevalence of traditional medicine utilization for their children in Tole Woreda Oromia Regional State, South-west Ethiopia, 2017 (N=267).

Variables	Frequency	Percent
Experience of ever used TM for their children (n=267)		
Yes	212	79.4
No	55	20.6
Utilization of TM last 12 months (n=212)		
Yes	182	85.9
No	30	14.1
Your sources of information about the traditional medicine for your child (n=212)		
Self	9	4.2
Family	106	50.0
Relatives	20	9.5
Friends	6	2.9
Neighbors	34	16.0
Health professionals	1	0.5
Religious institutions	9	4.2
Traditional healers	27	12.7

5.3 Type of traditional medicine utilization for their children

About 73 (34.4%), 55 (25.9%) and 25 (11.8%) of respondents used herbal medicine, massage and religious/prayer therapy for children respectively. However, only 53 (25%) of the parents practiced traditional medicine for their children within last six months (Table 3).

On other hand, 152 (71.7%) of the respondents have utilized traditional medicine for previous children. They were practicing herbal medicine 60(39.5%), massage 31(20.4%), and religious prayer therapy 25(16.4%). Most of them 127(83.6%) have been practicing traditional medicine when their children get sick and 77(50.7%) got these services from nearby healer (Table 3).

Table 3: Type of traditional medicine for their children in Tole Werada, Oromia Regional State, Southwest Ethiopia, April 2017.

Variables	Frequency	Percent
Type of traditional medicine ever used (n=212)		
Religious/prayer therapy	25	11.8
Herbal medicine	73	34.4
Bone settlers	16	7.5
Massage	55	25.9
Tooth extractor	13	6.1
TBA	7	3.3
Functional foods	15	7.1
*Other	8	3.9
When have you used traditional medicine for your child? (n=212)		
Within 1 month	31	14.6
Within 6 months	53	25.0
Before 6 months	128	60.4
Utilization of traditional medicine for previous child (n=212)		
Yes	152	71.7
No	60	28.3
Type of traditional medicine used for previous child (n=152)		
Religious/prayer therapy	25	16.4
Herbal medicine	60	39.5
Bone settlers	9	5.9
Massage	31	20.4
Tooth extractor	11	7.2
TBA	1	0.7
Functional foods	8	5.3
**Other	7	4.6
When and reason to use traditional medicine for your previous child/children (n=152)		
My child sick	127	83.6
Use daily	4	2.6
Use weekly	2	1.3
No improvement with modern medicine	10	6.6
Prefer than modern medicine	9	5.9
Source of traditional medicine (n=152)		
Cultivated	9	5.9
Wild	60	39.5
From healer	77	50.7

I don't know	1	0.6
***Other	5	3.3

[*= Tsefat /kitab, ** = Tsefat /kitab, ***=prepared]

In this study more than half of the parents, 140(52.4%), prefer modern health care service compared to 118(44.2%) who prefer both traditional medicine, as well as modern medicine. Yet, a few 8(3%) of the parents prefer only traditional medicine (figure 3). Some 64(48%) of the respondents need the services both in oral and dermal (figure 4) bases.

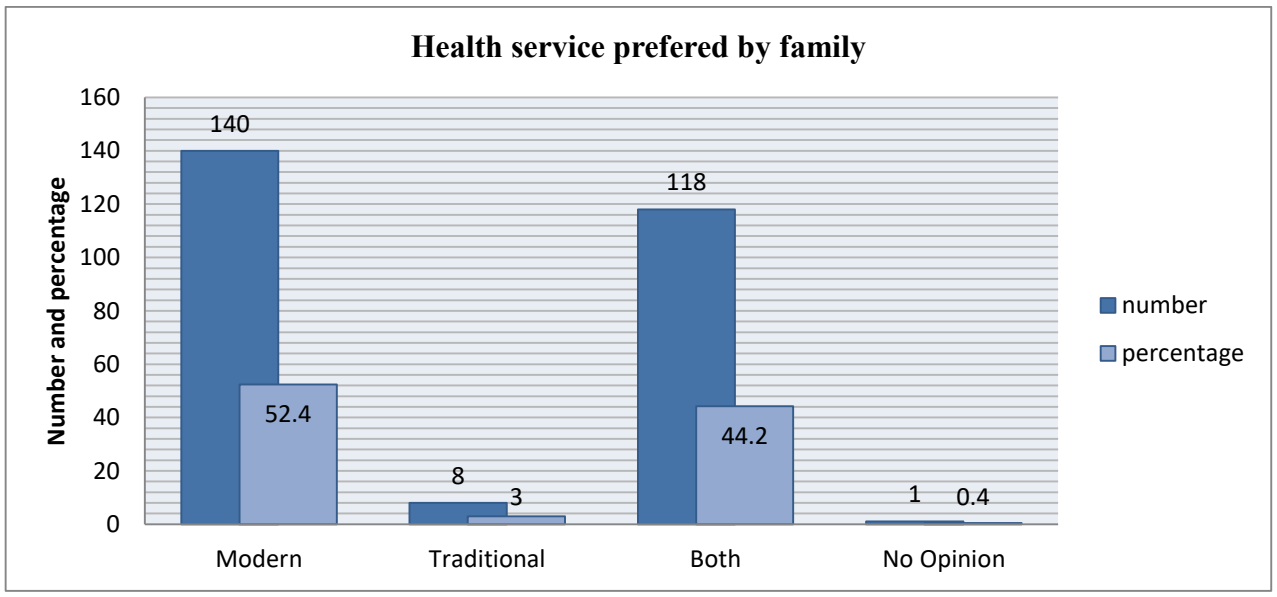
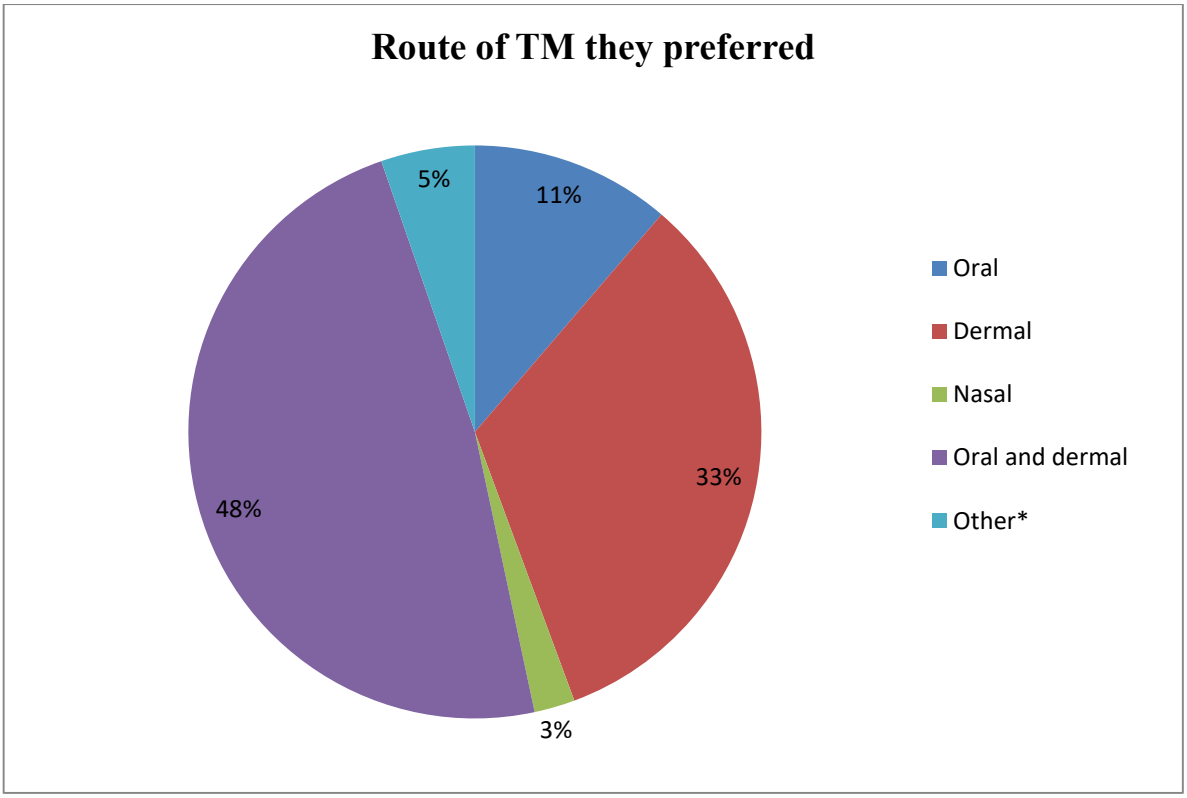


Figure 3: Health service preferred by parents for their children in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017.



*=Washing

Figure 4: Route of TM they preferred for their children in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017.

5.4: Reason for Parental Traditional Medicine Use for Children

The four reasons for parental traditional medicine use for children are grouped into: socio-cultural environment, parental perception of illness/sickness, parental experience of traditional medicine for themselves and socio-demographic characteristics.

5.4.1 socio-cultural environment for preference and utilization of traditional medicine

The popular reason to practice traditional medicine for their children in this study were religious belief 121(57.1%) and easily accessible 118(55.7%) followed by cultural belief 114(53.8%) and cost 114(53.8%) of the TM. The survey revealed that about 89(42.2%) of TM users communicate with their traditional practitioners when need arise.

5.4.2 Perception of their illness/sickness

About 81(38.2%) respondents reported that, the overall health status of their children before treatment were fair and 33(15.6%) very poor. Overall 182(85.9%) of them sought TM for acute illness which has less than 30 days duration. Of all, 88(41.5%) and 65(30.7%) of the parents reported that their children became good and very good after treatment, respectively (table 6).

Table 4: Socio-cultural and perception of parents on utilization of traditional medicine for their children in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017 (n=212).

Variables	Frequency	Valid Percent
What is your reasons for using Traditional Medicine		
Being easily accessible	118	55.7
Cost/cheap in price	114	53.8
Being referred by someone	95	44.8
Family influence	90	42.5
Cultural belief	114	53.8
Religious belief	121	57.1
Experience of able to communicate with traditional healers		
Never	36	17.0
Some Times	71	33.5
As Needed	89	42.0
Often	5	2.4
Very Often	11	5.2
The overall health status of your child before treatment (n=212)		
Very Poor	33	15.6
Poor	66	31.1
Fair	81	38.2
Good	25	11.8
Very Good	7	3.3
Pain or discomfort prevents your child from doing everyday things they need to do (n=212)		
Not at all	6	2.8
Little	91	42.9
Moderate	57	26.9
High	19	9.0
Very high	39	18.4
Duration of illness (n=212)		
Acute illness (1-30 days)	182	85.9
Chronic illness (>30 days)	30	14.2
Status of child after treatment (212)		
Very Poor	2	0.9
Poor	5	2.4
Fair	52	24.5
Good	88	41.5
Very Good	65	30.7

The majority of parents 182(86%) used traditional medicine to treat illness and relief symptoms (figure 5). Parents practice traditional medicine for the symptom of gastrointestinal (27.1%), headache (20.1%) and fever (13.7%) (figure 6).

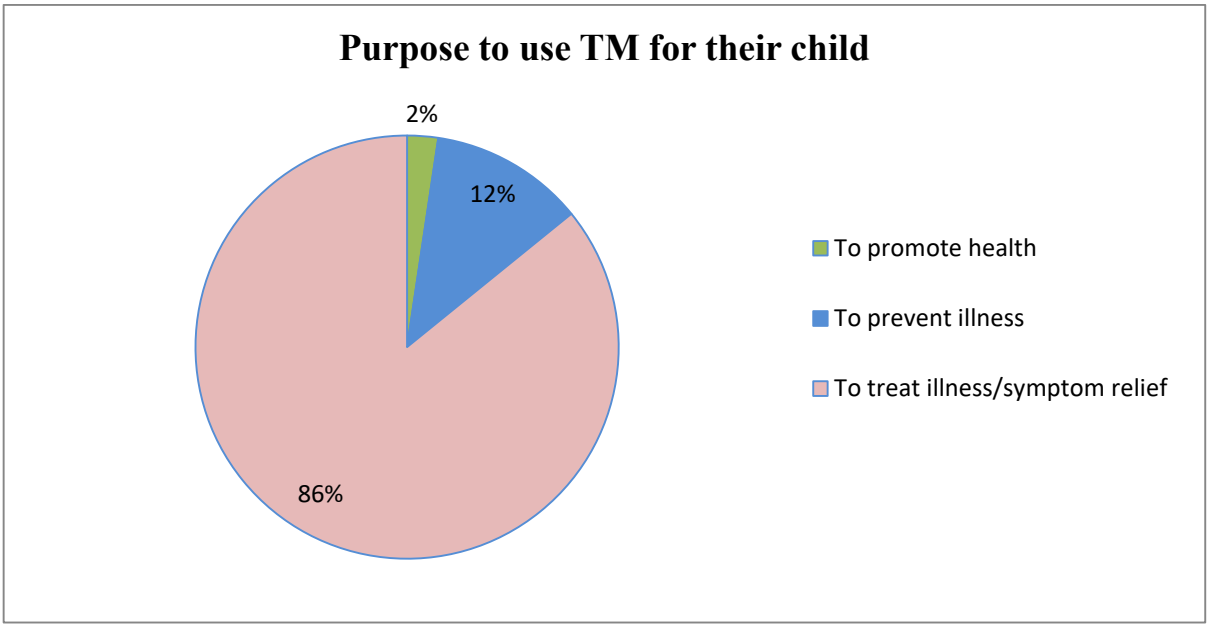


Figure 5: Purpose to use traditional medicine for their children in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017.

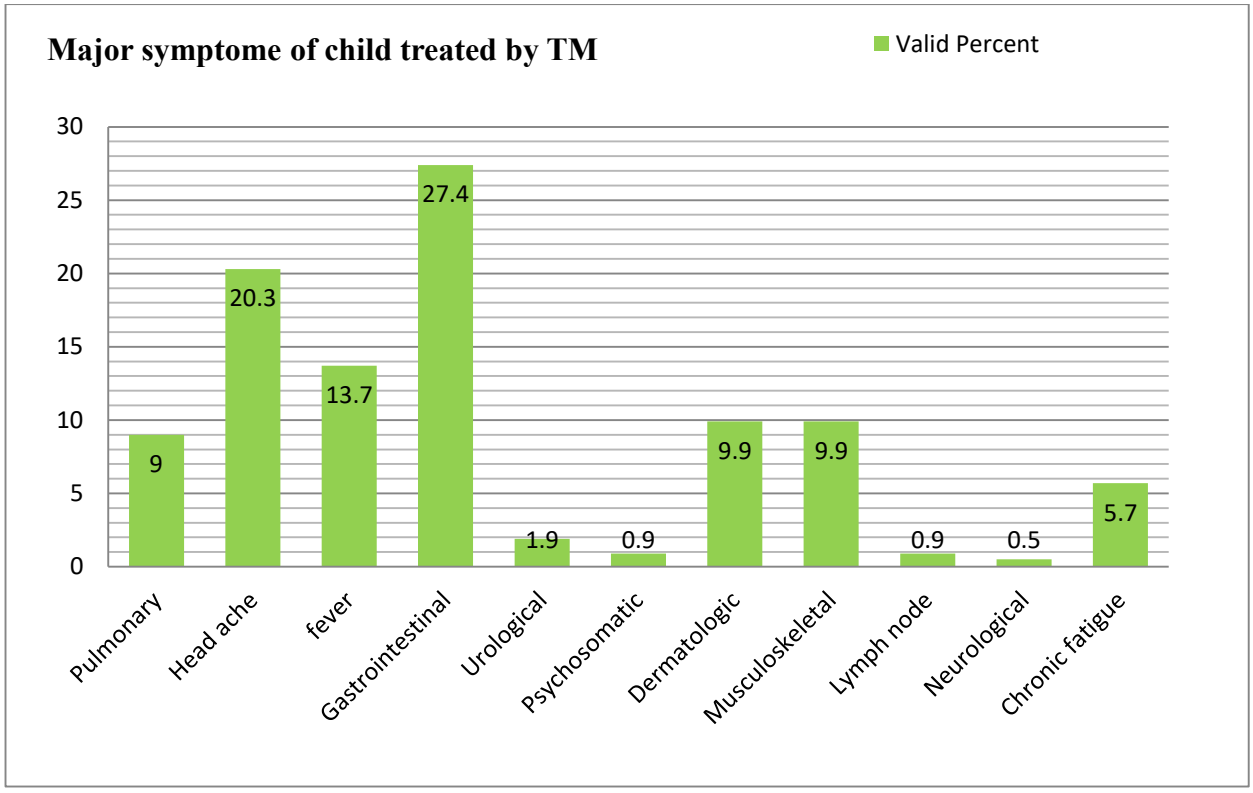


Figure 6: Perception of parent on child's symptom and their respective treatment in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017.

5.4.3 Experience of traditional medicine use for parents over last 12 months

More than half 60.3% of family members practice traditional medicine for themselves over last 12 months. About 50.9% of mothers and 29.2% of both fathers and mothers are practicing TM. The main reason for applying traditional medicine for themselves include: satisfaction with Traditional Medicine (29.2%) and knowledge of traditional medicine (21.7%). They rated the traditional medicine efficacy as fair (39.8%) and good (34.2%). They also put the level of satisfaction after traditional medicine utilization as somewhat satisfied (36.0%) and completely satisfied (29.8%). Generally, (41.9) of the parents rated the quality of the service they got from modern health care system as good and (35.2%) very good.

Table 5: Experience of traditional medicine utilized by parents over last 12 months in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017 (N=267).

Family practice of TM for themselves	**Frequency**	**Percent**
Yes	161	60.3
No	106	39.7
Who had used traditional medicine? (n=161)		
Mother only	82	50.9
Father only	29	18.0
Both	47	29.2
Grand parents	3	1.9
Reason for applying traditional medicine than modern medicine (n=161)		
When selected correctly it is effective	28	17.4
Satisfaction with Traditional Medicine	47	29.2
Dissatisfaction with modern medicine	19	11.8
The fear of using drugs and the side effects	8	5.0
Difficulty in accessing health care facilities/ high cost	15	9.3
Less efficacy of modern medicine	9	5.6
Knowledge of traditional medicine	35	21.7
Rating traditional medicine efficacy (n=161)		
Very Poor	3	1.9
Poor	7	4.3
Fair	64	39.8
Good	55	34.2
Very Good	32	19.9
Level of satisfaction after traditional medicine utilization (n=161)		
Completely dissatisfied	7	4.3
Somewhat dissatisfied	14	8.7
Neither satisfied nor dissatisfied	34	21.1
Somewhat satisfied	58	36.0
Completely satisfied	48	29.8
Ranking the quality of your experience with modern healthcare systems (N=267)		
Very bad	5	1.9
Bad	6	2.2
Moderate	50	18.7
Good	112	41.9

Very good	94	35.2
Total	**267**	**100**

5.7 Factors Associated With Utilization of Traditional Medicine

This section assesses the factors affecting the utilization of traditional medicine among the respondents. A bivariate logistic regression analysis was used to determine them.

The factors considered and statistically associated with parental TM use for children at p-value <0.05 (95% C.I) are: Monthly income per house hold, residence, utilization of TM for previous child, ease of accessibility of TM, cultural influence, religion influence, parental TM use and, duration of illness (Table 6). This was followed by a further multivariate analysis of variables which showed significance (p- value <0.2) bivariate associations. After adjusting for potential confounders in multivariate logistic regression analysis: Monthly income per house hold, cultural influence, religion influence and, duration of illness were significantly related with parental TM use for their children. Nevertheless, residence, utilization of TM for previous child, ease of accessibility of TM, cheapness, referred by someone, family influence and, parental TM use were not significantly associated with parental TM use for children in multivariate analysis.

The result depicts, parents who had medium monthly income (500-850) were less likely to use traditional medicine when compared to low income those who had low income (less than 500) [AOR: 0.25(0.08, 0.78)]. Cultural influence was significantly associated with parental TM practice for children. Parents who perceived TM due Cultural belief were 3.01 times to use TM [AOR=3.01(1.16, 7.83)] for children than their counterpart. Moreover, parents who utilize TM for children because of religious /influence were 3.17 times when compared to those who were not influenced by religious belief [AOR=3.17(1.26, 7.93)]. Similarly those have acute duration of illness (< 30 days) were 3.11 times to use TM for their children when compared to who have chronic duration of illness (≥30 days) [AOR=3.11(1.07, 9.02)].

Table 6: Factors associated with parental TM used for children in Tole Werada, Oromia Regional State, South-west Ethiopia, April 2017 (N= 267).

Variables		Parental TM use for their children		COR(95%CI)	AOR(95%CI)	p-value
		Yes	No			
Monthly income of house hold	<500	116(54.7)	15(7.1)	1	1	
	500-850	**23(10.8)**	**9(4.2)**	**0.32(0.15, 0.60)**	**0.25(0.08, 0.78)**	**0.018**
	851-1500	26(12.3)	4(1.9)	0.44(0.21, 0.89)	1.21(0.31, 4.73)	
	>1500	17(8.0)	2(0.9)	0.57(0.13, 1.40)	0.77(0.14, 4.15)	
Residence	Urban	48(18.0)	37(13.8)	1		
	Rural	134(50.2)	48(18.0)	2.15(1.25, 3.70)		
Utilization of TM for previous child	Yes	159(75.0)	21(9.9)	2.96(1.21, 7.25)		
	No	23(10.8)	9(4.2)	1		
Easily accessible	Yes	107(50.5)	11(5.2)	2.46(1.11, 5.48)		
	No	75(35.4)	19(9.0)	1	1	
Culture influence	Yes	**105(49.5)**	**9(4.2)**	**3.18(1.38, 7.33)**	**3.01(1.16, 7.83)**	**0.024****
	No	**77(36.3)**	**21(9.9)**	**1**	**1**	
Religion influence	Yes	**110(51.8)**	**11(5.2)**	**2.64(1.17, 5.87)**	**3.17(1.26, 7.93)**	**0.014****
	No	**72(34.0)**	**19(9.0)**	**1**	**1**	
Parental practice of TM	Yes	128(60.4)	13(6.1)	2.20(1.30, 3.72)		
	No	54(25.5)	17(8.0)			
Duration of illness	Acute(<30 days)	**161(75.9)**	**21(9.9)**	**3.29(1.33, 8.11)**	**3.11(1.07, 9.02)**	**0.037****
	Chronic(>30 days)	**21(9.9)**	**9(4.2)**	1	**1**	

Note the * significant at p<0.05

6. DISCUSSIONS

Traditional medicine has gained increasing popularity among parents for children (4). In this cross- sectional study, the prevalence of parental traditional medicine uses for children over 12 months is about 85.9%. The figure is greater than the study of historical overview of traditional medicine practices and policy in Ethiopia that puts around 80% (32). This may be attributed to; there are strong relation between socio-cultural environment and their health in the study area. Moreover, the finding of this study is greater than the estimation of, the National Center for Complementary and Integrative Health (NCCIH), which indicated the prevalence of using TM/CAM in children, varies from 9 to73% globally (17). The difference might be from methodological and cultural differences between the studies. The previous studies were conducted at health care setting while this study is at community level which involves several assessment of perception.

The finding revealed that the most commonly used traditional medicine were herbal medicine (34.4%), massage (25.9%), religious therapy (11.8%), and bone settler (7.5%). Similarly study done in Netherlands showed that herbal remedies (46.0%), food supplements (36.0%) and manual therapies (23.7%) were the most commonly used CAM modalities among pediatrics patients (26). However, the use of religious therapy/prayer was practiced in this study. This difference may be due to cultural difference of the two countries. In contrary study done in Ann Arbor, USA among cerebral palsy pediatrics patient in the university medical center disclosed that, the commonest forms of CAM was massage therapy (25%) (33). Another study in Ajman**,** UAE, indicated that nearly 80% of the parents reported giving their child herbal medicine followed by dietary supplements, prayer and massage therapy (31). Overall, these differences may be as a result of methodological difference and cultural difference between Ethiopia and other countries. Despite this, study done in Mota Town, Northern Ethiopia shows that the commonly used traditional medicines for children were herbal medicine (66.9%) followed by religious/prayer practice (52.8%), massage (22.8%) and bone settler (21.8%), which were parallel with this study (4).

In this study, no statistical relation was seen between children's type of illness/symptom and parental traditional medicine practice. In this study the most prevalent health problem were

gastrointestinal (27.4%), headache (20.3%), fever (13.7%), dermatological (9.9%), musculoskeletal system (9.9%) pulmonary disease (9.0%) and chronic fatigue (5.7%). Moreover, study done in Netherland revealed that (37.6%) of gastrointestinal patients were turning to CAM for their child (26). Traditional Chines Medicine used for treatment of infants' colic, fever, cough and vomiting (29). Also, study in Korea indicated the most prevalent of current CAM usage was significantly high in epilepsy patients (30). According to National Center for Complementary and Integrative Health (NCCIH), for children, complementary health approaches were the most often used for back or neck pain, head or chest colds, anxiety or stress, other musculoskeletal problems, attention-deficit hyperactivity disorder, and insomnia (17). However, study done in Ethiopia, Amahra region revealed the most frequent health problems that justified TM use were head ache (26%), gastro intestinal (24.4%), dermatologic (24.1%), chronic fatigue (21%) and psychosomatic (18.9%) which was congruent to this study (4). These similarities might be due to prevalence of acute and communicable diseases in Ethiopia, even though no statistical relation was seen between children's type of illness/symptom and parental traditional medicine practice.

Monthly income of house hold was the only socio-demographic characteristic which was significantly associated with parental TM use for children when adjusting for other factors factor that affects parental traditional medicine practice. The study found out that parental economic status was significantly associated with parental TM use for children currently. Parents had medium economic status were found to be 0.25 times less likely to practice TM [AOR=0.25(95% C.I. 0.08, .78)]. Despite these facts, study reveals that, among children in Taiwan, high prevalence of traditional and complementary medicine visits was associated with higher socio-economic status (HSES) (47). However, studies done in Africa indicated that use of traditional medicine was related with low economic status (6). Moreover, study done in Jimma Ethiopia indicated peoples need for cheap health care services (52). This may be due to more developing countries in Africa including Ethiopia are difficult to afford easily for modern medical care service given by health center and hospital.

Duration of illness was another factor that significantly associated with parental utilization traditional medicine for their children. Parents those used traditional medicine for acute illness (less than 30 days) were 3.11 times more likely when compared to those used it for chronic illness with [AOR 3.11, 95% CI: (1.07, 9.02)]. This study was incongruent with studies done in

Korea which indicated that those had chronic illness were more likely to use traditional medicine for their children when compared to acute illness [OR, 3.36 (95 % CI 1.71–6.59)] (30, 33, 46). This may be due to more of them used for acute illness for daily ailment of any illness of their children.

Socio-cultural environment of the family and the communities were another pushing factor to TM practice (19). In this study, cultural belief of parents was significantly associated with parental TM use. Among the total respondents, 114(53.7%) perceived TM due to it is accepted in the community. Those parents who perceived TM due to it is cultural belief were 3.01 times more likely to use TM [AOR=3.01, 95%CI (1.16, 7.83)] for their children when compared to those who perceived not due to its cultural belief to them. This is highly greater than the previous study done in Kenya that some (14.9%) of the respondents believe that herbal medicine is well accepted culturally by the community (54). Similar to these facts, study done in Jimma zone of Ethiopia revealed that the local people have been seeking for traditional herbal medicine even in preference to modern medications. It has some sort of connection with the community's belief. The communities believe that they would not get better medications for some diseases in modern health services (52). This difference clearly indicates there was strong cultural acceptability of traditional medicine in that community for some disease.

Religious belief is also found to be a key factor that influences parental use of traditional medicine. When adjusting for other factors, it was significantly associated with parental traditional medicine practice. Parents who have used traditional medicine for their children due to religious belief were 3.11 times more likely when compared to those who have no religious view [AOR=3.11, 95% CI: 1.07, 9.02)]. Similarly, in Nigeria a study indicated that about 23.0% used traditional medicine for their children due to religious beliefs (53). The reasons include strong religious belief in this community with their daily activities and health or they belief that diseases are the manifestation of God’s punishment for humanity.

Although parental use of TM for themselves was significantly associated with childhood traditional medicine practice in previous studies (19, 31, 33, 46), in this study, there wasn’t any significant difference between parents who had used TM for themselves and those who hadn’t used it previously. Similarly, study done somewhere else in Ethiopia, Amhara region indicated that there was no association between utilization of traditional medicine for themselves and their

children (4). Probably, this could be because of the attentions given to children and maternal health service by the government, as well as broader health education outreaches given by health extension workers at community level, particularly to the parents regarding children's health. As a result, they might hesitate to use TM for their children even though they used for themselves.

7. STRENGTH AND LIMITATION

7.1 Strength

One of the strength of this study is its specific focus on traditional medicine at community level in general and pediatrics populations in particular. Moreover, the study was randomized and community based. It is more representative than institution based studies.

7.2 Limitations

This study is not without any limitation. Three shortcomings can be outlined. First, the fact that studies conducted so far in Ethiopia are limited on this topic, there is no enough literature in Ethiopian context. Second, while the study considers parental characteristics; children's characteristics were not evaluated. Third, the study is cross-sectional and evaluates the effect of variable of interest, no possibility to identify whether TM practice affects the associated factors and whether there is association or effect between variables. Thus, subsequent studies could take into account these limitations for better understanding of traditional medication practices and pediatrics.

8. CONCLUSION AND RECOMMENDATION

8.1 Conclusion

There was high parental traditional medicine practice for children in this study (85.9%). This indicates the contribution of traditional medicines to the public health is significant. The study showed that for the majority of parents traditional medicines were among the options to promote, prevent and treat their children's health/health problems. The most commonly used traditional medicine therapies were herbal medicines. Monthly income per house hold, cultural influence, religious belief and, duration of illness were associated with parental traditional medicine use for their children in this study.

8.2 Recommendations

To FMOH and Policy makers

- Since there was high prevalence of TM use in the community, the integration of traditional medicine as part of modern medicine should be strengthening.
- Modern medicine accessibility and availability should further be expanded.
- Controlling mechanism should be set regarding traditional healers and TM accessibility.

Health Extension worker

- ✓ Education, support and counseling should be given to community at large and particularly to the women regarding traditional medicines.

To Researchers

- ✓ Safety and efficacy of TM should be studied further.
- ✓ Further national wide research (quantitative and qualitative) including children's characteristics should be conducted

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APPENDIX 1: INFORMATION SHEET

ADDIS ABABA UNIVERSITY

COLLEGE OF HEALTH SCIENCES

SCHOOL OF ALLIED HEALTH SCIENCE

DEPARTMENT OF NURSING AND MIDWIFERY STUDY

Introduction

Good morning/good afternoon!

My name is _____. I am here today to collect data on the parental traditional medicine use for their children and associated factor in Tole Woreda community.

The study is being conducted by Ato Fekensa Hailu from Addis Ababa university Department of Nursing and Midwifery, post graduate program. The objective of this study is to assess the parental traditional medicine use for their children and associated factor in Tole Woreda community. Therefore, your cooperation and willingness is greatly helpful in identifying factors related to parental traditional use. Your name will not be written in this form and will never be used in connection with any information you tell us & this questionnaire may take a maximum of 30 minutes to complete.

Address of the principal investigator:

Cell phone: +251 913297832

Email.hailufake@gmail.com

Address of Addis Ababa University, Faculty of Medicine, Institutional Review Board:

Telephone number: 0115538734,

E-mail: aaumfirb@yahoo.com

Data collector's name_____ Signature _____Date_____

APPENDIX 2: CONSENT FORM

Addis Ababa University

College of Health Sciences

School of Allied Health Sciences

Department of Nursing and Midwifery

I here with declare that:

- ✓ The objectives of this study are explained to me and are clear.
- ✓ The contents of the consent are verified to me to participate in the study.

I understand that participation in this study is completely voluntary and that I may withdraw at any time without supplying reasons. I agree to participate in this study to be interviewed, provided my privacy is guaranteed. When signing this consent form to participate in the study, I promise to answer honestly to all reasonable questions and not provide any false information or in any other way purposely mislead the researcher.

Signature of the participant_____ date _____ Signature of the investigator_____ date _____

APPENDIX 3: QUESTIONNAIRE, ENGLISH VERSION

Section I: Socio-Demographic Characteristics of the Parents

Instruction: Please circle the number in front of the option you choose.

No.	Variable	Coding categories
101	Sex	1. Male 2. Female
102	Age(in years)	_____
103	What is your religious affiliation?	1. Orthodox 2. Muslim 3. Wakefata 4. Protestant 5. Others
104	Marital status	1. Married 2. Single 3. Divorced 4. Widowed
105	Educational status	1. No read and write 2. Read and write 3. 1st. cycle (1-4) 4. 2nd cycle (5-8) 5. High school (9-10) 6. Preparatory (11-12) 7. Tertiary education
106	How far from the nearest health care center?	_____
107	How many children do you have (up to 18 years)?	_____
108	Monthly income level(ETB)	_____
109	Residence	1. Urban 2. 2. Rural
110	Age of the participating child in years	_____
111	Sex of the child	1. Male 2. Female
112	Educational status of the child	1. No read and write 2. Read and write 3. 1st. cycle (1-4) 4. 2nd cycle (5-8) 5. High school (9-10) 6. Preparatory (11-12)

Section II: Traditional Medicine practice

Instruction: Please circle the number in front of the option you choose.

No.	Variable	Coding category
113	Have you ever used Traditional Medicine for your child?	1. Yes 2. No
114	If 'yes' to question number 113, have you used Traditional Medicine for your child with in the last 12 months?	1. Yes 2. No 99. Not Applicable
115	Have you ever used any of the following complementary or traditional therapies?	1. Religious/prayer therapy 2. Herbal medicine 3. Bone settlers 4. Massage 5. Tooth extractor 6. TBA 7. Functional foods 8. Any others (specify)…
116	When have you used Traditional Medicine for your child?	1. Within 1 month 2. Within 6 months 3. Before six months

Section-III Type of tradition medicine used for their children

Instruction: Please circle the number in front of the option you choose.

No	Variable	Coding category
117	Which health care service do you prefer?	1. Modern 2. Traditional 3. Both 4. No opinion
118	Are you practicing traditional medicine for your previous child?	1. Yes 2. No
119	Which one used for your previous child?	1. Religious/prayer therapy 2. Herbal medicine 3. Bone settlers 4. Massage 5. Tooth extractor 6. Traditional Birth Attendants 7. Functional foods 8. Any others (specify)……
120	If your response for question No. 119 is 'Yes', when do you use the above traditional medicine for your child?	1. My child sick 2. Use daily 3. Use weekly 4. Monthly 5. No improvement with modern medicine 6. Always used as food, prophylaxis 7. Prefer than traditional medicine

121	From where you get traditional medicine?	1. Cultivated 2. Wild 3. From healer 4. I don't know 5. Other_____
122	Which route do you prefer?	1. Oral 2. Dermal 3. Nasal 4. Oral and dermal 5. Other, specify ----------

Section IV: socio-cultural environment for preference and utilization of traditional medicine.

Instruction: Please circle the number in front of the option you choose.

No.	Variable	Coding category
123	What is your reasons for using Traditional Medicine	1. Being easily accessible 2. Cost/cheap in price 3. Being referred by someone 4. Family influence 5. Cultural belief 6. Riligous belief 7. Any others? (specify)-------
124	What are your sources of information about the traditional medicine for your child is using?	1. Self 2. Family 3. Relative 4. Friends 5. Neighbors 6. Health professionals 7. Religious institutions 8. Traditional healers 9. Media 10. Any other? Specify---------
125	How much were you personally able to communicate about your child's health with the person(s) who provided the therapy for you?	1. Never 2. Some Times 3. As Needed 4. Often 5. Very Often

Section V: perceived illness/sickness

Instruction: Please circle the number in front of the option you choose.

No.	Variable	Code category
126	For what purpose you used Traditional Medicine for your child?	1. To promote health 2. To prevent illness 3. To treat illness/symptom relief 4. Others (specify)……
127	In your perception, the overall health status of your child before treatment is	1. Very poor 2. Poor 3. Fair 4. Good 5. Very good
128	To what extent do you feel that pain or discomfort prevents your child from doing everyday things you need to do?	1. Not at all 2. Little 3. Moderate 4. High 5. Very high
129	For which child's symptom you used traditional medicine?	1. Pulmonary 2. Gastrointestinal 3. Urological 4. Psychosomatic 5. Dermatologic 6. Musculoskeletal 7. Lymph node 8. Neurological 9. Chronic fatigue 10. Head ache 11. Any others? (Specify)…
130	What is the duration of illness?	_____
131	What does the overall health status of your child after treatment looks like?	1. Very poor 2. Poor 3. Fair 4. Good 5. Very good

Section VI: Healthcare Experience

Instruction: Please circle the number in front of the option you choose.

No.	Variable	Coding category
132	Have you ever used Traditional Medicine for yourself within the last 12 months?	1. Yes 2. No
133	If your response is 'yes' to question No.129, who had used Traditional Medicine?	1. Mother only 2. Father only 3. Both 4. Grand parents 5. Others, specify ---------- 99.Not applicable
134	What is (are) reason(s) for applying Traditional Medicine than modern medicine?	1. When selected correctly it is effective 2. Satisfaction with Traditional Medicine 3. Dissatisfaction with modern medicine 4. The fear of using drugs and the side effects 5. Difficulty in accessing health care facilities/ high cost 6. Less efficacy of modern medicine 7. Knowledge of traditional medicine 8. Any other? Specify……
135	Would you please rate the level of Traditional Medicine efficacy?	1. Very poor 2. Poor 3. Fair 4. Good 5. Very good
136	Would you please rate your level of satisfaction after traditional medicine use?	1. Completely dissatisfied 2. Somewhat dissatisfied 3. Neither satisfied nor dissatisfied 4. Somewhat satisfied 5. Completely satisfied
137	Overall, how do you rank the quality of your experience with modern healthcare systems?	1. Very bad 2. Bad 3. Moderate 4. Good 5. Very good
138	Could you please tell me anything relevant to healthcare problems in your area?	_____

APPENDIX 4: 'AFAN OROMO' VERSION QUESTIONNAIRE

1. Waraqaa Odeeffannoo

Akkam ooltan/ bultan?
Maqaan koo Fakkansaa Hayiluu jedhama
Yuuniversitii Finfinneetti koollejii saayinsii fayyaa muummee narsii, fayyaa daa'immanii irratti, barataa maastarsii waggaa lammaffaati. Yeroo ammaa Aanaa Tolee keessatti wal'aansa aadaa fi sababoota kanaan waqabatan maatiin daa'imman isaanitii godhan irratti qorannoo gaggeessan jira.
Mataduree qorannoo: "itti fayyadama wal'aansa aadaa fi sababoota kanaan walqabatan maatii daa'immaniitiin raawwatamu, Noonnoo Oromiyaa, Aanaa Tolee bara 2009."
Kaayyoon qorannichaa : itti fayyadama wal'aansa aadaa fi sababoota kanaan walqabatan maatii daa'immaniitiin raawwatamu qorachuudha.

Hirmaatonni qorannoo kanaa:abbaa manaa/haadha manaa ijoollee haga waggaa 18 qabanii fi gandoota filataman keessaatti argaamaan ta'anii kanniin carraan isaan gaheedha.
Miidhaa: qorannichi miidhaa homaa isinirraan hin geessisu.
Qorannichi kan gaggeeffamu gaaffii fi deebii qofaan waan ta'eef midhaa qamaas ta'e sammuu keessan irratti waan fidu hin jiru. Akkasumas, odeeffannoo isin hin beekne irratti deebi laachuuf hin dirqisiifamtan.
Bu'aa: Qorannoo kana kessatti hirmachuu keessaniif kaffaltiin isinii kennamu hin jiru. Karaa biraa garuu qorannoo kana keessatti hirmaattanii odeeffannoo kennuun keessan fayyaa da'imaani fooyyessuu keessatti iddoo ol'aanaa qaba.
Kanaafuu gaaffilee muraasa isin gaafadha. Deebiin keessan dhugaa irratti hundaa'e galma ga'iinsa qorannoo kanaaf ga'ee guddaa qaba. Deebiin isin kennitan namicha qorannoo kan gaggeessuufi gaafataan alatti nama biraatti hin kennamu. Guutummaatti heeyyamamaa taatanii akka irratti hirmaattan isin gaafadha. Hirmaachuu dhiisuu yookiin yeroo kamiiyyuu qorannicha/hirmaannaa keessan adda kutuu mirga guutuu qabdu.
Gaaffii kamiiyyuu yoo qabaattan, teessoo armaan gadiin na argattu!

Fekensa Hailu
Yuuniversiitii Finfinnee
Email: hailufake@gmail.com
Lakk.bilb: **0913297832**

2. FOORMII WALIIGALTEE

YUUNIVERSITII FINFINNEE

KOOLLEJJII SAAYINSII FAYYAA

MUUMMEE NARSII SAGANTAA MAASTARSII

Ani maqaan koo kan kanaa gaditti eerame kaayyoon qorannoo kanaa sirriitti waan naa ibsameef, naa galeera. Qorannoo kana irratti hirmaachuun fedhii irratti kan hundaa'e ta'uun sirritti hubadheera. Kanaafuu deebiin kennu iccitiin haga eegametti, qorannoo kan irratti himaachuuf walii galeera. Qorannoo kan irratti hirmaachuuf gaaffii gaafatamuuf deebii dhugaa irratti hundaa'e kennuuf mallattoo kiyyaanan mirkaneessa.

1. Mallattoo gaafatamaa_____guyyaa_____
2. Mallattoo gaafataa_____guyyaa_____

Kutaa: I –ragaa haala maatii sanaa walumaa galatti
Qajeelfama -lakkoofsa gabatee keessatti filannoof taa'e irratti maraa

Lakk.	Jijjiramaa	Koodii Jijjiramaaf Kenname
101	Saala	1. Dhiira 2. Dhalaa
102	Umurii	_____
103	Amantaa kam hordoftu?	1. Oortodoksii 2. Musliima 3. Waaqeffataa 4. Prootestaantii 5. Kan biro_____
104	Haala gaa'ilaa	1. Kan fuudhe/heerumte 2. Kan hin fuune /heerumne 3. Kan wal hiikan 4. Kan irraa du'e/duute
105	Sadarkaa baruumsaa	1. Dubbisuu fi barreessuu kan hin dandeenye 2. Dubbisuu/barreessuu kan danda'u 3. Sayikilii 1ffaa (1-4) 4. Sayikilii 2ffaa (5-8) 5. High school (9-10) 6. Priparaatorii (11-12) 7. Sadarkaa ol aanaa fi isaa ol
106	Jiddugaleessa fayyaa irraa hagam deemtu tilmaaman?	_____
107	Ijoollee waggaa 18 gadii meeqa qabdu?	_____
108	Galii ji'aa tilmaaman (qarshiidhaan)	_____
109	Iddoo jireenyaa	1. Magaala 2. Baadiyyaa
110	Umurii daa'ima si'anaa / booddeee	1.
111	Saala daa'maa	2. Dhiira 3. Dhalaa
112	Sadarkaa baruumsa daa'imaa	8. Dubbisuu fi barreessuu kan hin dandeenye 9. Dubbisuu/barreessuu kan danda'u 10. Sayikilii 1ffaa (1-4) 11. Sayikilii 2ffaa (5-8) 12. High school (9-10) 13. Priparaatorii (11-12)

Kutaa- II -Fayyadama Wal'aansa/Yaala Aadaa
Qajeelfama – lakkoofsa gabatee keessatti filannoof taa'e irratti maraa!

Lakk.	Jijjiiramaa	Koodii jijjiiramaaf kenname
113	Kanaan dura wal'aansa aadaa fayyadamtanii beektuu?	1. Eeyyee 2. Lakki
114	Gaaffii '113' eeyyee yoo jettan, ji'oottan 12'n darban keessatti mucaa keetii wal'aansa aadaa fayyadamtanii beebtuu?	1. 1.eeyyee 2. Lakki
115	Deebiin keessan eeyyee yoo ta'e, wal'aansa aadaa kanneen kam fayyadamtanii beektuu?	1. Kadhannaa amantaan fayyuu 2. Wal'aansa mukarraa qophaa'u 3. Ogeessa lafee cabe deebisu 4. Didhiibduu 5. Ilkaan buqqisuu 6. Deessistuu aadaa 7. Nyaata wal'aansaaf oolan 8. Kan biro_____
116	Mucaa keetiif wal'aansa aadaa yoom fayyadamte?	1. Ji'a tokkoo as 2. Ji'a jahaa as 3. Ji'a jaha dura

Kutaa-III Gosoota Wal'aansa Aadaa Daa'ima Isaaniif Fayyadaman
Qajeelfama - lakkoofsa gabatee keessatti filannoof taa'e irratti maraa!

Lakk.	Jijjiiramaa	Koodii Jijjiiramaaf Kenname
117	Tajaajila fayyaa kennamu kam irra filattu?	1. Ammayyaa 2. Aada 3. Lachanuu 4. Yaada hin qabu
118	Daa'ima warreen kaaniif wal'aansa aadaa kana fayyadamtanii beektuu?	1. Eeyyee 2. Lakki
119	Wal'aansa gosa kam mucaa kee duraaf fayyadamte?	1. Kadhannaa amantaa(kadhannaa, tsebel) 2. Qoricha gosa mukaarraa qophaa'u 3. Ogeessa lafee cabe deebisu 4. Dhidhiibduu 5. Ilkaan bukkisuu 6. Deessistuu aadaa 7. Nyaata wal'aansaaf oolan 8. Kan biro_____
120	Gaaffii 119 deebiin keessan 'Eeyyee' yoo ta'e qoricha kana mucaa keessaniif yoom fayyadamtan?	1. Yoo dhukkubsatte 2. Guyyaa-guyyaaniin 3. Torbeeniin 4. Ji'aan 5. Yoo wal'aansa amayyaan itti fooyya'uu dide 6. Yeroo mara akka nyaatatti dhibee ittisuuf 7. Wal'aansa amayyaa irra wayya jidheeni

121	Dawaa wal'aansaaf oolan kana eessaa argattu?	1. Biqilchine qabna 2. Bosonaa/hurufaa guurama 3. Ogeessarra arganna 4. Hin beeku 5. Kan biro_____
122	Dawaa kanneen karaa kam irra jaalattu/barbaaddu?	1. Kan dhugamu 2. Kan dibatamu/gubbaa 3. Funyaaniin 4. Kan dhugamuufii dibatamu 5. Kan biro_____

Kutaa IV: Itti Fayyadama Wal'aansa Aadaa Fi Dhiibbaa Isaan Wal Qabatan
Qajeelfama -lakkoofsa gabatee keessatti filannoof taa'e irratti maraa!

Lakk.	Jijjiiramaa	Koodii Jijjiiramaaf Kenname
123	Wal'aansa aadaa akka fayyadamtu kan isin taasise Sababni keessan maali?	1. Salphaatti waan argamuuf 2. Gatiin isaa gadi bu'aa waan ta'eef 3. Namni biroon waan isinitti himeef 4. Dhiibbaa maatiin (abbaa/haadha) 5. Aadaa keessaniin ni fayyisa jettanii amanuu 6. Amantaa keessaniin ni fayyisa jettanii amanuu 7. Kan biro_____
124	Wal'aansa aadaa daa'ima keetiif akka fayyadamtaniif maddi odeeffannoo keessanii maali?	1. Ofumaa nan beeka 2. Maatii koo irraa dhagahe 3. Fira 4. Hiriyyaa 5. Ollaa 6. Ogeessa fayyaa 7. Abbootii amantaa 8. Ogeessa aadaa 9. Midiyaa 10. Kan biro_____
125	Tajaajila kana nama birootu isinii kenna yoo ta'e, namicha tajaajila yaalaa aadaa daa'ima keessanii kennu faana hagam qaaman walargitanii mari'attu?	1. Wal-argee hin beeku 2. Darbee darbee walargina 3. Akkuma na barbaachisetti argadha 4. Yeroo irra caala nan arga 5. Yeroo hunda

Kutaa: V –Haala Dhukkubii Isaanii Itti Hubatan
Qajeelfama -lakkoofsa gabatee keessatti filannoof taa'e irratti maraa!

Lakk.	Jijjiiramaa	Koodii Jijjiiramaaf Kenname
126	Sababni guddaan wal'aansa aadaa daa'ima keessanii fayyadamtaniif maali?	1. Fayyaa cimsuu 2. Dhukaba ittisuuf 3. Dhukabsataa yaaluuf

		4. Kan biro_____
127	Walumaagalatti haalli fayyaa daa'ima keetii osoo hin yaalamin dura maal fakkaaata ture ?	1. Baay'ee gadi bu'aa 2. Gadi bu'aa 3. Giddugala 4. Gaaridha 5. Baay'ee gaaridha
128	Dhukkubbiin daa'ima kee kana wanta hojjachuu qabu akka hin hojjanne hagama godhe jettee yaada?	1. Gunkumaa hin dhoowwine 2. Xiqqoo dhoowwee ture 3. Giddugaleessadha 4. Baayyee 5. Guutummaatti dhoowwe
129	Daa'imti kee mallattoo akkamii yoo argisee/dhukkubsatte wal'aansa aadaa fayyadamta?	1. Dhibee sirna hargansuu 2. Dhibee garaa keessaa 3. Naannoo fincaanii 4. Dhibee sammuu 5. Dhibee gogaa 6. Lafee fi maashaalee (fakkeenyaaf: cabuu buqqa'uu fi bu'uu) 7. Dhibee xannachaa 8. Dhukkubbii narvii (fkn. Laamshessuu, butuu miilaa) 9. Dadhabbii cimaa 10. Bowwoo mataa 11. Kan biro_____
130	Dhukkubbiin hagamiif irra ture?	_____
131	Walumaagalatti fayyaan mucaa kee erga yaalameen booda maal fakkaata?	1. Baay'ee gadi bu'aa 2. Gadi bu'aa 3. Giddugala/haga tokko itti fooyya'e 4. Gaaridha/fayyeera 5. Baay'ee gaaridha

Kutaa: Vi- Muuxannoo Kunuunsa Fayyaa
Qajeelfama-lakkoofsa gabatee keessatti filannoof taa'e irratti maraa!

Lakk.	Jijjiiramaa	Koodii Jijjiiramaaf Kenname
132	Wal'aansa aadaa ji'oota 12'n darban keessatti ofii keessanii fayyadamtanii beektuu?	1. Eeyyee 2. Lakki
133	Gaaffii 132 'Eeyyee' yoo jettan eenyutu fayyadama?	1. Haadha qofa 2. Abbaa qofa 3. Lachuu 4. Akkawoo/akaakayyuu 5. Kan biro_____
134	Sababbiin wal'aansa aadaa wal'aansa amayyaarra filattaniif maali?	1. Yeroo wal'aansa sirrii filatan ni fayyisa 2. Yaala aadaatti quufeera 3. Yaala amayyaa itti hin quufne 4. Miidhaa qoricha amayyaa fidu sodaadheen 5. Manni yaalaa naannoo keenyatti dhibuu

		6. Wal'aansi ammayyaa na hin fayyisne 7. Beekumsa wal'aansa aadaaf qabuun 8. Kan biro_____
135	Mee Sadarkaa fayyisuu wal'aansa aadaa agarsiisi/olkaa'I tilmaaman!	1. Baayyee gadi bu'aa 2. Gadi bu'aa 3. Giddugala 4. Gaaridha 5. Baayyee gaaridha
136	Mee erga wal'aansa aadaa fayyadamtee hagama akka itti quufte agarsii	1. Homaa itti hin quufne 2. Haga tokko itti hin quufne 3. Ittis hin gammanne, ittis hin gaddine 4. Haga tokko na quubse 5. Sirriitti na quubse
137	Walumaagalatti muuxannoo qulqullina kenniinsa tajaajila fayyaa amayyaa wajjin qabdan akkamitti olkeessu?	1. Baay'ee dadhabaadha 2. Dadhabaadha 3. Giddu galeessa 4. Gaaridha 5. Baayyee gaaridha
138	Rakkina kenninsa tajaajila fayyaa naannoo keessanitti jiru natti himuu dandeessuu?	_____

Yeroo Keessan Waan Nuu Kennitaniif Galatoomaa!

DECLARATION FORM

The undersigned, declared that this thesis is my original work and has not been presented for a degree in this or any other university, and all source materials used for the thesis have been fully acknowledged.

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Date of submission: _____

This thesis will be submitted for examination with our approval as university Advisors.

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Full name_____

Rank _____

Signature_____