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

PREVALENCE AND FACTORS ASSOCIATED WITH PARENTAL COMPLEMENTARY AND ALTERNATIVE MEDICINE UTILIZATION FOR CHILDREN WITH CANCER IN PEDIATRIC ONCOLOGY AT TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA, 2020: A CROSS-SECTIONAL STUDY

INVESTIGATOR: HABTAMU SEIFE (BSc)

A THESIS SUBMITTED TO ADDIS ABABA UNIVERSITY, COLLEGE OF HEALTH SCIENCES, SCHOOL OF NURSING AND MIDWIFERY, DEPARTMENT OF POSTGRADUATE NURSING FOR THE IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR MASTER'S OF SCIENCE IN CLINICAL ONCOLOGY NURSING

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ADISS ABABA, ETHIOPIA

COLLEGE OF HEALTH SCIENCES

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APPROVAL SHEET

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I, the undersigned MSc student, declare that I have submitted my original thesis on a title of Prevalence and factors associated with parental Complementary and Alternative Medicine Utilization for children with cancer in TASH, AA. Etiopia,2020, for the examination.

Submitted by:

HABTAMU SEIFE _____ _____

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This thesis work has been submitted for examination with my approval as an advisor.

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APPROVAL BY THE BOARD OF EXAMINATION

This thesis by Habtamu Seife is accepted in its present form by the board of examiners as satisfying thesis requirement for the degree of masters in Clinical Oncology Nursing

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STATEMENT OF DECLARATION

By my signature below, I declare and affirm that this thesis is my own work. I have followed all ethical principles of scholarship in the preparation, data collection, data analysis and completion of this thesis. All scholarly matter that is included in the thesis has been given recognition through citation. I affirm that I have cited and referenced all sources used in this document. Every effort has been made to avoid plagiarism in the preparation of this thesis.

This thesis is submitted in partial fulfillment of the requirement for a graduate degree from the Addis Ababa University at College of Health Sciences, School of Nursing and Midwifery, department of Nursing. The thesis is deposited in the Addis Ababa University Digital Library and is made available to local, national and international scientific community. I solemnly declare that this thesis has not been submitted to any other institution anywhere for the award of any academic degree, diploma or certificate.

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LIST OF ABBREVIATION/ACRONYMS

AAU: Addis Ababa University

AAUDN: Addis Ababa University Department of Nursing

CAM: Complementary and alternative medicine

CM: Conventional Medicine

ETB; Ethiopian Birr

FMOH: Federal Ministry of Health

HMIS: Health Management Information System

NCCAM: National Center for Complementary and Alternative Medicine

OR: Odds Ratio

SPSS: Statistical Package for Social science

TASH: Tikur Anbessa Specialized Hospital

TCAM: Traditional Complementary and alternative medicine

TCM: Traditional Chinese Medicine

TCM: Traditional Chinese medicine

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Abstract

Background: Complementary and Alternative medicine is a group of various medical and health-care systems, practices, and products that are not currently part of conventional medicine. The use of complementary and alternative medicine among cancer patients has grown rapidly worldwide. Yet, In Ethiopia studies conducted on pediatrics cancer patients so far are very limited. This study aimed at assessing the prevalence and factors associated with parental complementary and alternative medicine utilization for children with cancer.

Objective: To assess the Prevalence and factors associated with parental Complementary and Alternative Medicine Utilization for children with cancer in the Pediatric oncology unit at Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia.

Methodology: Institutional-based cross-sectional study design was used. Data was collected using structured interviewer-administered questionnaire. The study was conducted among 126 Parents of the child among those who were visited black lion Hospital pediatric oncology between April 13- May 12. Descriptive and logistic regression analysis were used to present the data.

Result: It was found that 59.5 % of parents had used CAM for their children with cancer.

The top therapies used were spiritual healing 79.3% (special prayer sittings,45.3%), Tsebel (33.3%) and lighting candle 1.33% followed by Biological based methods 17.3(used herbs, 16%, and Honey 1.3%) and Manipulative therapies (Relaxation, 2.7%)

Residence who live in a rural area were [AOR= 0.34 (P. 0.04, (0.12-0.97], Region, educational level Presence of Health problems (co-morbidity) [AOR=4.76 (P.0.06, (4.76(1.57--14.4)] were associated with parental CAM use for children with cancer.

Conclusion and recommendation: There were high parental CAM utilization for children in this study (59.3%). Residence parents, region, educational status of parents, comorbidity of the child with cancer were associated with parental CAM use. Examine the coordination of services between these two diverse systems of health care; factors related to use and the outcomes of patients with cancer who use CAM. Further study is needed to determine the effect of independent self-treatment with CAM on the use of conventional health services and treatment for cancer.

Keywords: Complementary and Alternative Medicine, Pediatric cancer, Ethiopia

Chapter 1: INTRODUCTION

1.1 Background Information

Cancer is one of the most common worldwide diseases that none of the conventional strategies (surgery, chemotherapy, and radiotherapy) can eliminate its cells. Furthermore, many serious side effects are often left using these routine therapies. Because conventional therapies cannot differentiate between cancer cells and healthy cells, they damage both types of cells. Therefore, many cancer patients look for a wide range of complementary and alternative medicine (1).

Complementary and Alternative Medicine has been defined by the National Center for CAM as a group of various medical and health-care systems, practices, and products that are not currently part of conventional medicine, when unconventional approach product are used together with conventional medicine, it is said to be complementary; however, when it is used in place of conventional medicine, it becomes an alternative medicine. Therefore, CAM is an umbrella term used for both complementary and alternative health-care practices(2)

Complementary medicine is used in conjunction with conventional medicine; for example, massage, guided imagery, and acupuncture may be used in addition to analgesic medications to help decrease pain and stress. Alternative medicine is used in place of conventional Western medicine; for example, some adolescents use herbs rather than antidepressant medications to treat depression. The most popular therapies seem to be dietary treatments, herbalism, homeopathy and hypnotherapy (3). The use of CAM has increased steadily over the past 15 years, and certainly, it has gained medical, economic, and sociological importance.

CAM is an accepted alternative for conventional medical care, particularly in chronic, recurrent or incurable conditions, such as gastrointestinal diseases, arthritis, asthma, and certain neurological disorders is common in children. However, in the management of cancer, CAM may be unfavorable since early treatment is critical for prognosis and survival (4).

Complementary and Alternative Medicine for the child's treatment Many parents describe as being helpful, and few report adverse effects as huge literature reported that an increasing and generally high prevalence of CAM use has been documented worldwide in children with cancer due to several factors such as, Pediatric CAM use has been associated with parental CAM use,

sociodemographic factors, poor health prognosis of the child and increased parental age or education and as a lower-cost alternative to expensive conventional treatment and in hope for a miracle cure (5)(6). Ethiopia is among the most populous African countries with the prediction of being the top 10 most populous countries in the world by the year 2050. Currently, cancer is becoming the primary public health issue in the country owing to its fast-growing rate (7).

A Cross-Sectional Study on the prevalence of CAM use in patients with cancer and comparing the quality of life (QoL) in CAM users and nonusers in Ethiopia reported in the literature are among employed patients (79%) patients were found to be users of CAM. Educational status, average monthly income, disease stage, and comorbidity were strong predictors of the use of CAM. And the study revealed a high rate of CAM use with very low disclosure rates to their health care providers (7).

Common types of CAM practices in Ethiopia

The type of CAM modalities will be classified as **biological-based therapies** (herbal medicine, honey, animal products diet, and natural products (vitamins and minerals**)), manipulative and body-based therapies** (exercise, massage, acupuncture, and relaxation), and **mind/body intervention**, spiritual healing which includes prayers, lighting candles, consuming holy water such as "Tsebel" (a type of holy water used by orthodox Christians),and fasting (abstinence from any food or drink) and listening to music. Types of CAM included based on prevalent CAM practices reported in Ethiopia identified through literature review (8) (9) (10).

In Ethiopia, little has been done in recent decades to enhance and develop the beneficial aspects of CAM, including relevant research to explore possibilities for its gradual integration into modern medicine (11). Despite the huge body of literature published elsewhere in the world regarding CAM use by pediatric cancer patients, there is no research article published regarding the prevalence of CAM use and factors association of parent's CAM use for their children in Ethiopia.

Therefore, describing prevalence and factors associated CAM utilization among parents of a child with cancer helps to improve child health practice, identify the possibilities of integrating CAM to modern practice, and to achieve the MDG 4 (to reduce child mortality).

1.2 Statement of the problem

Unreasonable use of medicine is a main tricky worldwide. It is estimated that more than half of all medicines are prescribed, dispensed or sold in appropriately and that half of all patients fail to take them correctly. This contributes to enormous health and economic impacts both at a personal and national level(12). As a result, pediatric use of complementary and alternative medicine (CAM) therapies raises legal as well as clinical concerns (13). Around 80% of Ethiopian people use self-traditional or complementary and alternative medical practice and that is still widely used in Ethiopia. This is also pediatric patients who receive conventional care receive complementary therapies. However, the prevalence CAM utilization among Ethiopia pediatrics cancer patient still limited. This limitation makes a gap for clear communications between health professions and the children families about CAM it benefits, how and why they used, which types of CAM, and with unscored or unknown prevalence of CAM utilization of pediatric cancer patients was also difficult to further assessing or finding any related issue.

However, knowing or measuring CAM utilization therapies of pediatric cancer patients are importance for being aware of the necessity information to have an open, respectful relationship patient and used to develop an understanding of active participation and partnership with the health care provider throughout the healing process (18). Lack of magnitude of CAM utilization data among parts of children with cancer often prevent medical practitioners from providing informative counseling to the parents.

A systematic review of 20 studies of CAM interventional factors in pediatric oncology patients reported that such interventions are feasible and safe, effects on the symptoms and quality of life. Positive effects were also identified on the pain, sleep, anxiety, nausea, fatigue, quality of life, overall activity levels, and specific aspects of physical function (14).

CHAPTER 2: LITERATURE REVIEW

2.1 General concept about CAM

Complementary and Alternative medicine consists of various techniques with spiritual and/or corporal dimensions such as imagery, relaxation, mesotherapy herbal remedies, or various diets and techniques such as chiropractic and acupuncture. CAM is used for various reasons, from helping to cure cancer to relieving symptoms (15).

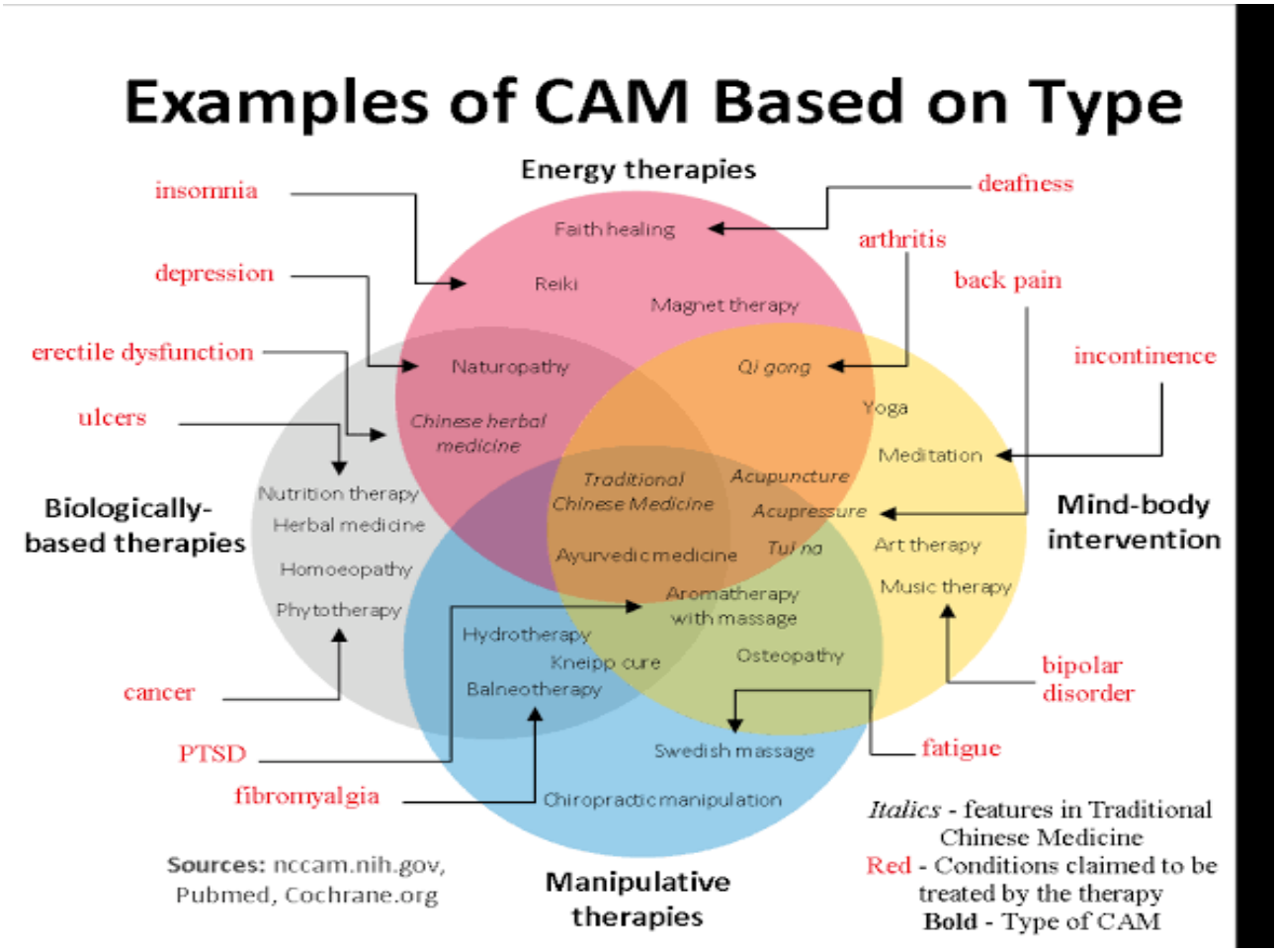

Figure 2 1: The above figure show that the four common types of CAM practices with their varieties examples and Health conditions claimed to be treated by the therapy of CAM, source NCCAM **(16)** .

2.2 Prevalence of CAM Utilization

The use of CAM in Western medicine has grown dramatically in recent decades. Many CAM therapies, such as herbal remedies, are mainstream or traditional in many parts of in western and in developing country including Ethiopia. The World Health Organization estimates that most of the world's population regularly uses "traditional medicine" such as traditional Chinese medicine (TCM), Ayurveda medicine, and Native American healing practices (17).

A survey conducted at two sites of Children's Hospital and Clinics of Minnesota study result showed that among 281 families children with cancer completing the surveys, 147 (52.3%) children used one or more types of CAM therapies in the past year (18) . study performed at a pediatric oncology center in Kuala Lumpur, Southeast Asian Population their prevalence results showed that 84.5% of the respondents had used CAM (19).Another study conducted in children

With Cancer Treated at an Italian Pediatric Oncology on CAM used their result showed that 12.4% of the children used at least one type of CAM (20). According to study conducted in Tel-Aviv, Israel among hospitalized pediatric patients among respondents there 78 (54.3%) were using CAM (21). Study conducted among families residing of children with cancer in southern Turkey suggest that 82,5%of parents used CAM therapies in their children with (22). Another study in pediatric oncology patients in Indian hospital CAM utilization showed that of the enrolled children, 7.58% used CAMs (23). study among pediatric cancer patient in Beirut, Lebanon among the study participants 15.2% of respondents reported using one or more CAM therapies for their child(24)2. Another study conducted by Irish Pediatric Cancer Patients among total participants Fifty-two respondents (57%) said their child had used or was using CAM (25). A study conducted on Prevalence and Correlates among Cancer Patients in Usman Danfodiyo University Teaching Hospital, Sokoto, Nigeria majority, 159 (66.3%) of the 240 respondents, were CAM users (26).

According to study conduct in pediatric hematology–oncology patients Turkey It was found that parents were mostly used CAM methods was praying 97.3%, imagery 55.5%, herbal treatment 51.8%, massage 35.5% and diet 29.1%(27) .

Study result showed in Asia pediatric cancer patients showed that (84.5%) parents reported using at least one form of CAM (28).

2.3 Factors associated CAM Utilization

2.3.1 Parents Sociodemographic

Study conduct in America on CAM Use by Pediatric Specialty Outpatients more than 95% of the respondents were the patient's parent, mostly mothers (81.7%) (29). According to study conduct in pediatric oncology patients in a South Indian hospital results of the study showed that highly educated parents with a high socioeconomic status used CAM therapy more than uneducated parents with a low socioeconomic status (23). According to study conduct in Irish Pediatric Cancer Patients There were more male children (58%) than female (42%) in the sample the mean age of children was 9 years, with a range of <1 year to 18 years among respondent's most (84%) parents were married and majority (62%) of parents had education to a level greater than Leaving Certificate (30). Another study conducted among CAM use children with cancer in Thalassemia show that Most respondents were mothers who were housewives and lived within the town the mean age of the parents was 37*8 years (standard deviation, 7*7 and most of the parents (82.5%) stated that they had used one or more CAM therapies in their children's lifetimes (22). According to study conduct in Canada the caregiver population had a mean age of 38.5 years and consisted mostly of primary caregivers (94.5%), most commonly mothers (73.6%), (31).

2.3.2 Child Sociodemographic and Disease Characteristics

According to study conduct in Irish Pediatric Cancer Patients There were more male children (58%) than female (42%) in the sample the mean age of children was 9 years, with a range of <1 year to 18 years among respondent's most (84%) parents were married and majority (62%) of parents had education to a level greater than Leaving Certificate (30). Study conducted at university hospital in northeast Mexico among pediatric cancer 56% of the patients had been sick for more than one year at the time of the interview (32). According to study conducted in Turkey a comprehensive cancer center Out of the 195 patients surveyed, 154 (79%) are CAM users, while 41(21%) were nonusers at a time of survey Patients had been received treatments with chemotherapy (90%), surgery (70%), or radiotherapy (53%) as conventional therapy (33). Study conducted in Asia showed that most of the CAM users (40%) had begun using the particular modality 1 month after the date of diagnosis (34)

2.4 Parents (reason of CAM use) Health Care Experience

2.4.1 History of parental CAM use

Studies from Israel and Germany also reported a positive association between prior CAM use in the family and prior positive attitude towards CAM and its use in children (33). The survey conducted at two sites of Children's Hospital and Clinics of Minnesota, USA Parents who used some type of CAM therapy were more likely to use CAM for their child among the 193 parents who used CAM, 126 (65.3%) of their children also used CAM(35).

Another study conducted in Florida and Delaware states of America result showed that the prevalence of CAM use among 24.5% CAM user of children their parents history of CAM use was also 66.7% (36).

Another study conducted in Canada, among CAM use in children with cystic fibrosis result showed that among CAM user children found that 53% of parents or caregivers had a history of CAM use (37).

Study conducted Southern Arizona among children with special health care needs result showed that among the caregivers who responded to the questionnaire, 149 (43%) of 349 reported that they have used CAM therapies for their own needs at some time in the past (38).

2.4.2 Health-related problems (comorbidity)

Study in Canada also stated the most frequent health problems that justified CAM use were musculoskeletal problems (27%), psychological problems (24%), infections (20%), asthma/ allergies (15%), pain (8%), skin problems (8%), and colic 8% (39). On the other hand, study among Calabrian children revealed that the most common illness treated with CAM were gastrointestinal diseases, upper respiratory tract diseases and dermatological disease (40)

Study conducted in Australian show that the most common reasons selected CAM were due to provide medical condition such as to 'improve physical well-being' (86.3%), 'improve emotional wellbeing' (83.2%) and 'boost the immune system' (68.8%). About half of the respondents (49.2%) reported using a complementary therapy to 'reduce treatment side effects (42).

Another study conducted Unconventional Therapy Use Among Children With Cancer in Saskatchewan, Canada results showed that of the 44 families in the study, 16 (36%) had used or were using some form of unconventional therapy for dealing with their child's cancer (41).

Another the same study conducted in Lebanon result showed that the most common reason reported for using CAM therapies was "strengthening immunity" (42.1%). Other reported reasons included improving the chance of cure (21%), detoxification (10%), (24)

A study report showed in western Turkey families were used CAM therapies, the most common reason (60%) was to support the child's immune system (43). study result show in India among pediatric CAM user cancer patients the parents were made aware of CAM treatment by family members who previously used CAMs for their ailments (42.85%) , and the reasons for preferring CAM therapy were that the children were not improving with their current treatment (38.09%), and because a complete cure was expected with CAM therapy (57.14%) (23).

According to study conduct in USA on Factors Associated with Pediatric Use of CAM in the selected diseases and conditions with the most common being was back or neck pain (6.7%), head or chest cold (6.6%), anxiety/stress (4.8%), other musculoskeletal conditions (4.8%) and insomnia/trouble sleeping (1.8%) (42).Another study in Boston Children's Hospital, on Correlates of Complementary and Alternative Medicine Use in a Pediatric Tertiary Pain Center result indicated that among their sample, 497 (42%) reported exposure to CAM for their pain therapy (43).A survey conducted in tertiary pediatric emergency department in Zurich result showed that the respondents factor of CAM therapies in general to be inferior to that of CM, although 49% of all respondents stated that CAM therapies were more effective than CM in certain cases=against certain diseases and 13% that CAM therapies were as effective as CM (44).

According to study conduct in a Swiss University Hospital , Switzerland Most CAM users thought the CAM methods they used had positive effects (n = 62, 87%) and the majority of CAM users (87%) thought that CAM therapy had helped (45)The same study conducted in Lebanon result showed as parents reported one their reason to use were to minimizing the pain (11%) (24)According to study conducted in southern Turkey on use of CAM in a pediatric population result showed that among CAM user which were used to treat cough (42.0%), diarrhea (30.0%) and gas (colic) pains (34.4%).(46)

2.4.3 Affordability (Cheap in price)

According to study conduct in Nigeria Fifty-nine (37.1%) of the 159 CAM users believed that using CAM improves treatment outcome with hospital medications, while 40 (25.1%) said that they used it because it was readily available. A study conducted in Turkey on use of CAM in a pediatric population result showed that among CAM user thirty-eight percent (n=102) of the participants stated that they preferred to use CAM modalities rather than referring to a doctor when their child was sick (46). a study done in Ghana indicates that 58.6% users of traditional health care services claimed that traditional medical services are "cheap" in comparable with the orthodox medical service (47).

2.4.4 Cultural Belief

According to study conducted in Germany pediatric cancer patients on CAM use result show that moreover many people (75%) believe that CAM are tested concerning quality and adverse effects and are therefore safe (48). A study conducted on CAM use among children Diyarbakir, Turkey, result showed that among CAM user the most common CAM applications included CAM applications based on traditional beliefs which were used in 73% of the patients (49).

Study conducted in Lebanon reported that one the reason to use CAM for their pediatric leukemia belief that CAM stops the progression of the disease (5%) (24)Study in Nigeria cancer patients in tertiary Hospital on CAM use result showed that Thirty (18.9%) of the 159 CAM users believed that CAM use has spiritual and cultural importance, while 30 (18.9%) used CAM because it was more affordable (50)

Generally, reporting the results interview data collected from parents on children's use of CAM during or after childhood cancer. Across studies, the use of such therapies ranged from 31% to 84% (32)as literature investigation indicates that children with chronic disease are more than three times more likely to use CAM compared with children without chronic diseases, Pediatric CAM use has been associated parental Socio-demographic characteristics, such as (sex, increased parental age, low educational level, residence, region), child clinical and Socio-demographic characteristics such as (sex, age ,types of cancer duration of diagnosis) and including a desire parental reasons reported for CAM or health related experience such as (presence of co-morbidity accessibility, low price and (21) (22).

2.4 Conceptual Frame work

Below is the framework of the study which shows the interaction of different independent variables with outcome variables that contains Parental Sociodemographic, Child Sociodemographic and diseases characteristics and Parents Reasons of CAM use (Health Care Experience) factors which were adapted from different researches and slightly modified in accordance of this context.

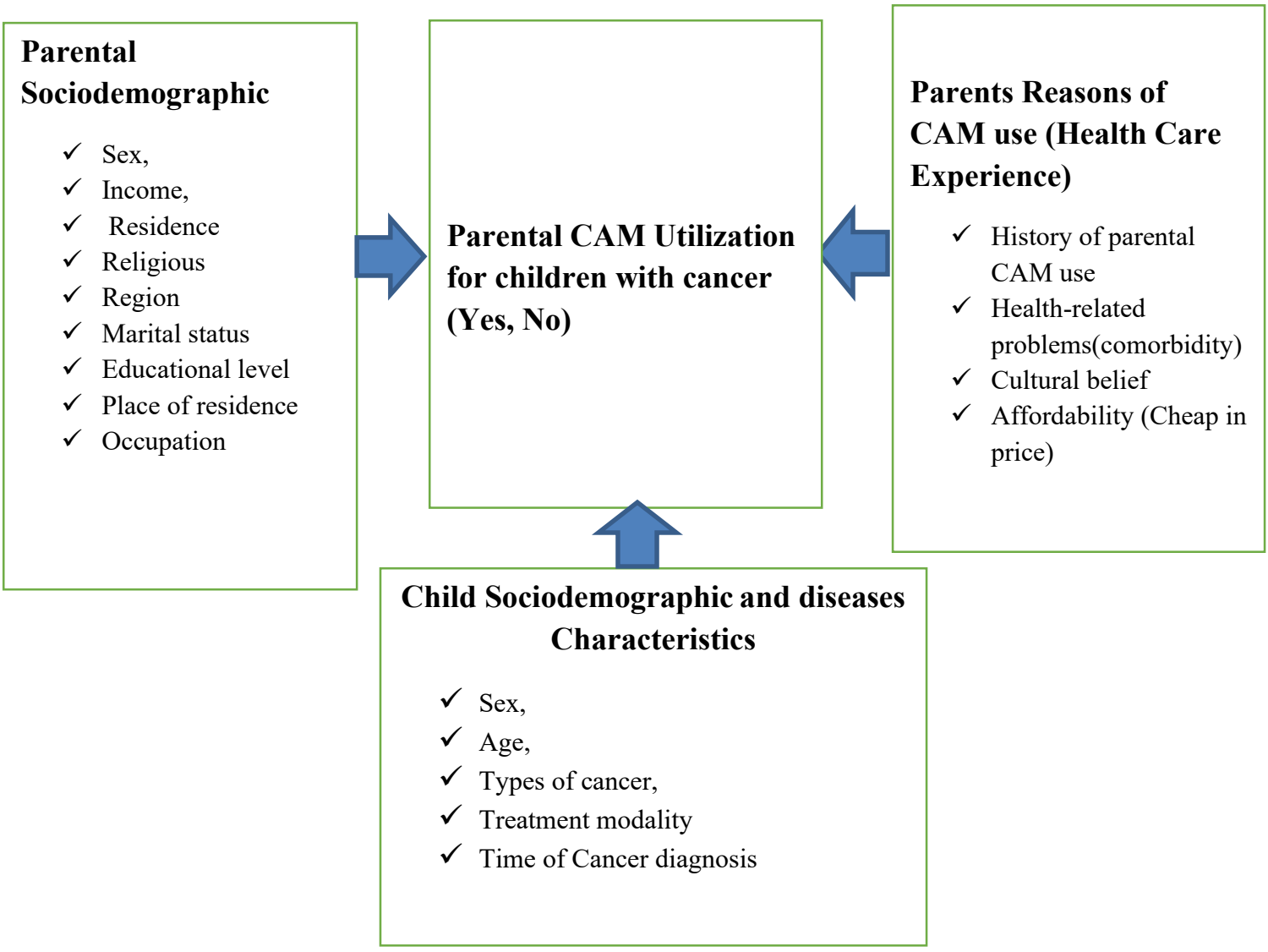

Figure 2 2: Conceptual framework for Prevalence and factors associated with parental Complementary and Alternative Medicine Utilization for children with cancer (adapted and modified from literatures review. **(23) (6) (25) (9) (10) (8)**).

2.5 Justification of the study

The Name ‘Cancer ‘by itself is the death sentence for most people especially in developing country including Ethiopia. Cancer patients and their families face the trauma of distress, worries, and immense fear, they seek all possible options of effective treatment. Some patients also search for the CAM option. CAM therapies increase patient’s and family’s feelings of control on their symptoms and develop an understanding of active participation and partnership with the health care provider throughout the healing process especially on cancer patients.

Even though the use of CAM therapies in children has recently shown explosive growth, there is little scientific evidence of benefit, a need for better regulatory oversight, and continuing gaps in the knowledge and attitudes of pediatric health professionals (51). So, determining the rational of increased childhood CAM utilization has paramount importance and it will fill the gap in these regards.

Despite of availability and accessibility of modern health facility and professionals, people are still continuing to use CAM not only for themselves but also for their children as well. Understanding regarding this issue is limited. Furthermore, it is common to find inconsistencies among researches findings related to what causes increased utilization of childhood CAM. The problem is that in Ethiopia, studies conducted so far are very limited. Therefore, this cross-sectional study was conducted to assess the prevalence and factors associated parental CAM utilization for their children with cancer.

Unfortunately, due to sociodemographic, medical, symptom burden, spiritual, cultural, and other reasonable factors, CAM user pediatric cancer patients come to health facilities in Ethiopia. To the best of our knowledge the prevalence and associated factors have not been specifically addressed in Ethiopia

2.6 Significance of the Study

Determining the prevalence and describing factors associated with CAM Utilization among parents of children with cancer was important to help Parents as baseline information such as the CAM therapy are helpful, safe, effects on their child health and quality of life. For Clinician, by recognizing the Burdon and factor associated with CAM Utilization among parents of children with cancer they should discuss its use in a non-judgmental way and educating their client about CAM use and encouraging active conversation for the proper use of CAM. Nurses also, play a valuable role by assisting them to make informed choices about such therapies, thus ensuring that the risks of such therapies are minimized and only the benefits are gained.

Findings from this work also important for Policy-maker and particularly those who work with cancer as a reference of information and strategy to facilitate the integration of CAM therapies with CM into a health care system. successful obtained this research also important for the researcher as a partial fulfillment of a requirement of masters in Clinical Oncology Nursing and used as baseline practice in the development of research paper in the research field. In addition, the results obtained from this study was important for further related studies to be broadly and extensively done.

CHAPTER 3: OBJECTIVE

3.1 General Objective

- To assess the Prevalence and factors associated with parental Complementary and Alternative Medicine Utilization for children with cancer in the Pediatric cancer unit of Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia from April 13- May 12/2020.

3.2 Specific Objective

- To determine the prevalence of CAM Utilization among parents of children with cancer.
- To identify factors associated with CAM Utilization among parents of children with cancer.

CHAPTER 4: METHODS AND MATERIALS

4.1 Study area

This study was conducted at the Pediatric Oncology Unite of Tikur Anbessa Specialized Hospital, Addis Ababa, Ethiopia. TASH is the only highest-level referral center and a teaching hospital in the country, located in Addis Ababa, Ethiopia. The hospital has about 800 beds and gives diagnostic and treatment services for about 370,000-400,000 patients per year (52).

TASH is the main referral center for cancer registry, in Ethiopia. In 2014, the hospital has total of 78 beds and the bed reserved for cancer care at the oncology unit is 20, The cancer unit of the TASH provides chemotherapy, radiation therapy, and other supportive and palliative care in Addis Ababa. The pediatric oncology unit of TASH has outpatient and inpatient services. There are about 800-1000 pediatric oncology patients visiting TASH annually (source information, unpublished HMIS data from TASUH pediatric oncology outpatient and inpatient abstract register book of 2019/2020.

4.2 Study period

The data was collected from April 13- May 12/2020

4.3 Study design

Institutional-based cross-sectional study design was used.

4.4 population

4.4.1 Source population

All parents of children with cancer patients who attending at Pediatric Oncology unit of TASH during data collection period**.**

4.4.2 Study population

Due to total population sampling was used the study population were the same as source population.

4.5 Eligibility criteria

4.5.1 Inclusion criteria

- ✓ Children with cancer age limit 0-15 years

- ✓ Child who present with regular care giver.
- ✓ Those child with cancer available at the time of data collection were included

4.5.2 Exclusion criteria

- ✓ Parents who had psychological problems.
- ✓ Very sick child

4.6 Sample size and sampling procedure

4.6.1 Sample size determination

The sample size was determined using single population proportion formula

$$n = \frac{Z^2 P(1-p)}{d^2}$$

Whereas,

n = sample size, Zα/2(1.96): significance level at α =0.05,

P: expected proportion of CAM use pediatric cancer patients' (50%), = (0.5) since there is no previous study conducted on pediatric cancer patients' in Ethiopia even in Africa.

d: margin of error (0.05) and 10% non-response rate.

$$n = \frac{1.96^2\ 0.5(1-0.5)}{(0.05)^2} = \frac{1.9208\ (0.5)}{(0.0025)} = \frac{0.9604}{0.0025} = 384$$

384 adding 10% none response rate totally = 422

4.6.2 Sampling procedure

Census approach was used. Due to small source of population all parents of children with cancer who fulfill the inclusion criteria was become a sample unit until the end of the data collection period.

4.7 Data collection tools and procedure

4.7.1 Instrument and measurement

The interview with a structured questionnaire tool was modifying by the investigator according to items used in previous similar studies (10) (9) (26) (8) (53) and prepared in English also translated to Amharic after than back to English in to ensure that the translated version gives the proper meaning and items was review for relevance by a research expert including the research advisors.

Either the father or mother of the children was interviewed. But priority will be given for the mother because mothers are close to their children than fathers.

The final Interview guide questions tool constitutes includes around twenty-four items and divided in Three-section such as on section one, regarding on sociodemographic of caregiver on section Two pediatric sociodemographic and disease characteristics and on section Three was aimed to assess the prevalence of CAM utilization and Parents Reason of (Health Care Experience) of CAM use. The dependent outcome of this study was measured by asking Parental CAM use for children was defined as a user if they consumed "Any CAM use," if any type of the following (from the list) 14 CAM services were used in the past year. if any was used (> 0). Responses to the above-mentioned questions on CAM use was dichotomized as yes or no (1 = yes, 0 = no).

During the data collection, the client Hospital chart was used as a secondary source of data for child diagnosis, current treatment, and other sources of information, and a primary source we used child parents by an interview with a structured questionnaire. Thus, in constructing the research instrument, special consideration was given as starting from introducing the concept of CAM up to adequate information.

4.7.2 Data Collectors

Data collection was performing by two BSC Nurse, non-staff in the pediatric unit of TASH. Data collection was performing through an interview with a structured questionnaire after pre-training on the conduct of the research. The Training was given by the principal investigator for two days by using research abstraction format guidelines starting from explaining the topic and definition of CAM, then include such as the aims of the research, methods, and materials of the study. The principal investigator was also responsible for guiding and supervision of the work of the data collectors.

4.8 Data Quality control

To assure the data quality, data collection tools were preparing after intensive reviewing of relevant literature and similar studies. Training was existed for data collectors (BSc Nurse) by the principal investigator. 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 Jimma medical center at

5% of actual respondents. After the pre-test unclear questions were collected and interviewers adjusted themselves as required. But the data from the pre-test, was not included in the analysis.

An explanatory cover letter, assuring parents privacy was accompanied in each questionnaire and during interview time we were used a privacy room for each participant. Suitability of the data abstraction format was assessed through in-depth discussion with experienced oncologists and research advisors. Data collectors were assumed information about the aim and the content of the study and informed written consent were reserved from the parents before started the study. By supervisors and principal investigator regular review and check for completeness, accuracy, and consistency of the questionnaire of the data extraction format daily during the data collection period.

4.9 Data processing and analysis

The data was cleaned, coded, and entered in Epi data version 3.1 and transferred to SPSS version 26.0 for analysis. Descriptive and inferential statistics were used to present the data. Descriptive statistics like frequency and percentage were used to review the sociodemographic characteristics of the study participants. And inferential statistics like odds ratio, binary logistic regression, and multiple logistic regression were used to regulate if there was an association between the dependent variable (parental CAM use for children with cancer) and different independent factors. Variables showed statistically significant in binary regression analysis i.e. (p-value <0.05), were entered for multivariate analysis. And P-value of < 0.05 was considered as significant at 95% CI.

4.10 Study Variables

4.10.1 Dependent variable

Parental CAM Utilization for Children with Cancer (Yes, No)

4.10.2 Independent variable

- Parental sociodemographic factors (Sex, Age, Income, Religious, Region, Marital status, Place of residence and Educational status)
- Child Sociodemographic and diseases Characteristics factors (Sex, Age, Types of cancer, Time of diagnosis and Treatment modality),

- Parents Health Care Experience (History of parental CAM use, Health-related problems, cultural belief, Cheap in price)

4.11 Operational definition

Parental CAM use for children was defined as a user if they consumed "Any CAM use," if any type of the following (from the list) CAM services were used in the 12 months (54) .if any will used (> 0).

A list of CAM methods listed three types of CAM modalities among the four domains of CAM recognized by the NCCAM (16) in this study design by the principal investigator.

List type of CAM modalities will be classified as

- **Biological-based therapies** (herbal medicine, honey, animal products, dietary and natural products (vitamins and minerals**)),**
- **manipulative and body-based therapies** (exercise, massage, acupuncture and relaxation),
- **mind/body intervention**, spiritual healing which includes prayers, lighting candles, consuming holy water such as "Tsebel" (a type of holy water used by orthodox Christians), and fasting (abstinence from any food or drink), and listening to music.

Responses to the above-mentioned questions on CAM use was dichotomized as yes or no (1 = yes, 0 = no).

4.12 Ethical consideration

Ethical clearance protocol No 021/20/SNM was obtained from the Research and Ethical Review Committee of Department of Nursing, School of Nursing and midwifery, college Health Science, Addis Ababa University. The permission letter was obtained from the pediatrics department TASH. The objective of the study was briefly clarified and explain to each of the participants. Ethical considerations were taken in to account during the study.

4.13 Dissemination of the result

The result of this study will be presented and submitted to Addis Ababa University College of Health Sciences, school of nursing and midwifery, and department of nursing as partial fulfillment of masters of Science in Clinical oncology. The effort will be made to present the result in locally

or internationally held sessions and meetings. For the publication purpose, the abstract of this thesis will be submitted to national or globally peer-reviewed medical journals.

CHAPTER 5: RESULT

The study included a total of 130 eligible parents. Among these, 126 parents completed the interviewer-administered questionnaire making a 96.9% response rate. A single number of parents were invited to participate in the 126 pediatric cancer patients. From which 57.1% being the mother, 38.1% fathers, and 4.8% were other relatives of the child.

5.1 Socio-demographic characteristics of caregivers in TASH, AA, Ethiopia, 2020.

Most of the caregivers were mothers 72 (57.1%), The Mean parent's age = 34.3 ± 7.3(years ± SD). Moreover, among the total respondents, 51(40.5%) were living in urban. While 105(83.3%) of the participant were married and 94(74.6%) of the participants of the study have replied as they have monthly income (above 2000ETB) who were mainly Employers 93(73.8%).And of the total 126 respondents,41(32.5%) participants come from Oromia the region and 78(61%) were Christian religious followers. The Socio-demographic characteristics of the caregivers are summarized in (Table 1) below.

Table 1: Sociodemographic characteristics of Parental CAM use for children in TASH, AA, Ethiopia,2020

Variable	Frequency(N=126)	Percentage (%)
Parent sex		
Male	54	42.9
Female	72	57.1
Age group(years)		
< 25	8	6.3
> 25 and < 35	74	58.7
> 35 and < 45	33	26.2
> 45	11	8.7
Mean parent's age = 34.3 ± 7.3 (years ± SD)		
Residence		
Urban	51	40.5
Rural	75	59.5
Religious		
Christianity	78	61.9
Muslim	48	38.1

Monthly income (ETB) <2000 Above 2000	 32 94	 25.4 74.6
Occupation Employed Unemployed	 93 33	 73.8 26.2
Region Amhara Oromia Addis Ababa Others*	 20 42 19 46	 15.9 32.5 15.1 36.5
Marital status Single Married Divorce windowed	 4 105 6 11	 3.2 87.3 4.8 8

Others= Tigeray+SNNPE, **Employed** = farmers, merchants, Self & gov- worker, House wife **Christian=** orthodox, protestant, catholic

The parents' reported level of formal education was a primary school in most cases (36.5%), followed by illiterate (23%), the least percentage of status among respondents was secondary educated level (16,6%). (Figure 5.1)

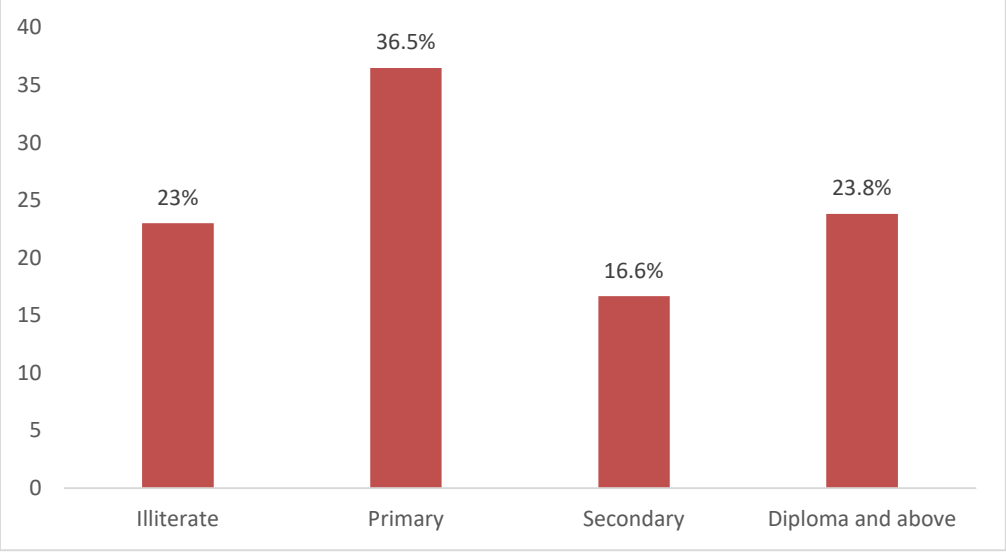

Figure 5 1: Frequency of Parents Educational level among Parental CAM use for children in TASH, AA, Ethiopia,2020

5.2: Child Sociodemographic and Clinical Characteristics in TASH, AA, Ethiopia, 2020.

The Mean child's age (years ± SD) 5.9 ± 3.7 clients ranged from less than 1 year to 16 years old. The sample of clients consisted of more males (56.3%). Most clients (61.9%) confirmed cancer diagnosis time was a 12-month duration. At the time of the study, 54% of the clients were receiving only Chemotherapy and (31%) were receiving mixed kind of conventional treatment (chemotherapy, radiation, or any kind of treatment).On the other hand among the total 78(61.9%) of children with cancer their duration of cancer diagnosis had less than 12 months. sociodemographic and clinical characteristics are given in (Table 2) below.

Table 2. Child Sociodemographic and Disease characteristics in TASH.AA, Ethiopia,2020

Variable	Frequency(N=126)	Percentage (%)
Sex		
Male	71	56.3
Female	55	43.7
Age (years)		
< 1	15	11.9
> 1 and < 5	52	41.3
> 5 and < 10	45	35.7
> 10 and < 16	14	11.1
Mean child's age (years ± SD) 5.9 ± 3.7		
Treatment modality		
Surgery	7	5.5
Chemotherapy	68	54
Radiation	12	9.5
Concurrent	39	31
Duration Cancer diagnosis		
<12 months	78	61.9
above 12 months	43	34.1

The most common cancer among the children was Sarcoma type (28.57%) follow by lymphoma (29.36%) and the least type of cancer in this study were Carcinoma (9.5%). Types of cancer are given in (Figure 5.2).

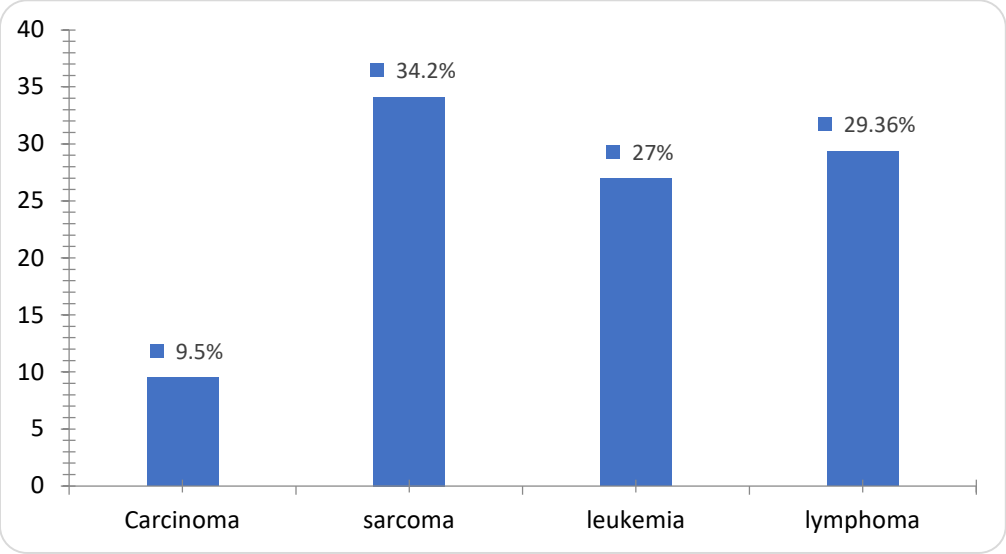

Figure 5 2: Types of cancer diagnosed among children using CAM in TASH, AA, Ethiopia,2020.

5.3: **Prevalence of CAM utilization among parents of children with cancer in TASH, AA, Ethiopia, 2020.**

Among the total of 126 participants of this study, 75(59.5%) of the parents utilizing the any one form of CAM product for their children in the last 12 months. Prevalence of CAM utilization shown in (Figure 5.3)

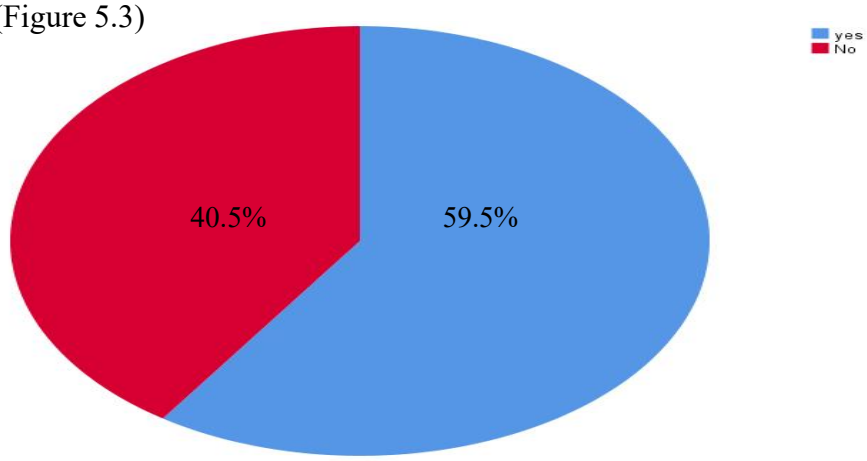

Figure 5 3: Prevalence of CAM utilization among parents of Child with cancer at TASH, AA, Ethiopia,2020

The majority 85 (67.5%) of those who used CAM reported CAM was Helpful outcome experience, 32(25.4) reported as not Helpful outcome experience and the rest of respondents said it was harmful outcome experience. (Table 3)

Table 3: outcome experience on utilization of CAM among Parents used for their child with cancer at TASH, AA, Ethiopia,2020

Variable	Frequency(N=126)	Percentage (%)
Outcome experience of CAM use		
Helpful	85	67.5
Not Helpful	32	25.4
Harmful	9	7.1

Among the total of CAM user, the most commonly used CAM method was mind-body intervention/ spiritual healing (had special prayer sittings,45.3%) and Tsebel (33.3%) followed by Biological based methods (used herbs, 16%) while the least utilized CAM product/practice among the respondents was Manipulative therapies (Relaxation, 2.7%)have used either form of Complementary and Alternative medicine within the last 12 months.(figure 5.4)

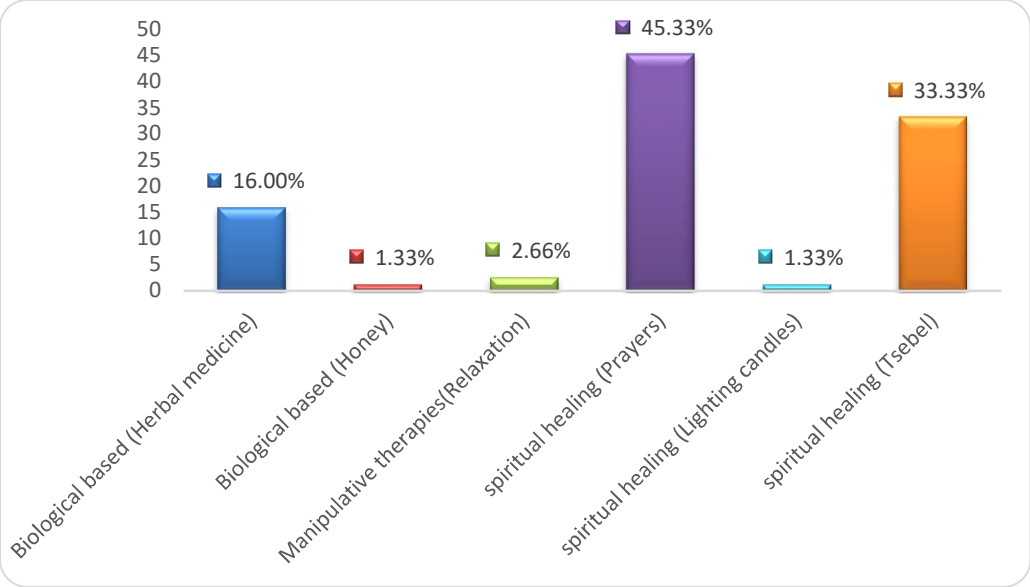

Figure 5 4: Types of CAM Parental use for children in BLH, AA, Ethiopia,2020)

5.4: Parental reason Health related experience factors for using CAM for their children with cancer in TASH, AA, Ethiopia, 2020.

Parental reason for using CAM for their children with cancer considering the following factors, Parents used CAM for themselves, Cultural belief, Affordability, Health problem (comorbidity) factors among respondents. Parents responded that 74(58.7%) were used the CAM for themselves at least once within 12 months, 29 (23%) were responded that using CAM as part of cultural belief and practice, 32(25.4%) parents were mentioned CAM was cheap price as compared to modern medicine. (Table 4)

Table 4: Frequency of Parental (reason) Health related experience factors for using CAM for their children with cancer in TASH, AA, Ethiopia, 2020

Variable	Frequency(N=126)	Percentage (%)
History of Parents CAM use for themselves		
Yes	74	58.7
No	52	41.3
Cultural influence		
Yes	29	23
No	93	77
Cheap in price		
Yes	32	25.4
No	94	74.6
Health problems(co-morbidity)		
Yes	64	50.7
No	62	50.3

Among the total 126 children who parents used CAM products of child with cancer 64(50.7% had with co-morbidity during data collection time in addition to cancer, from this (32.8%) had anxiety and depression and (23.4%) Headache as shown, (14%) abdominal pain. (Figure 5.5) below

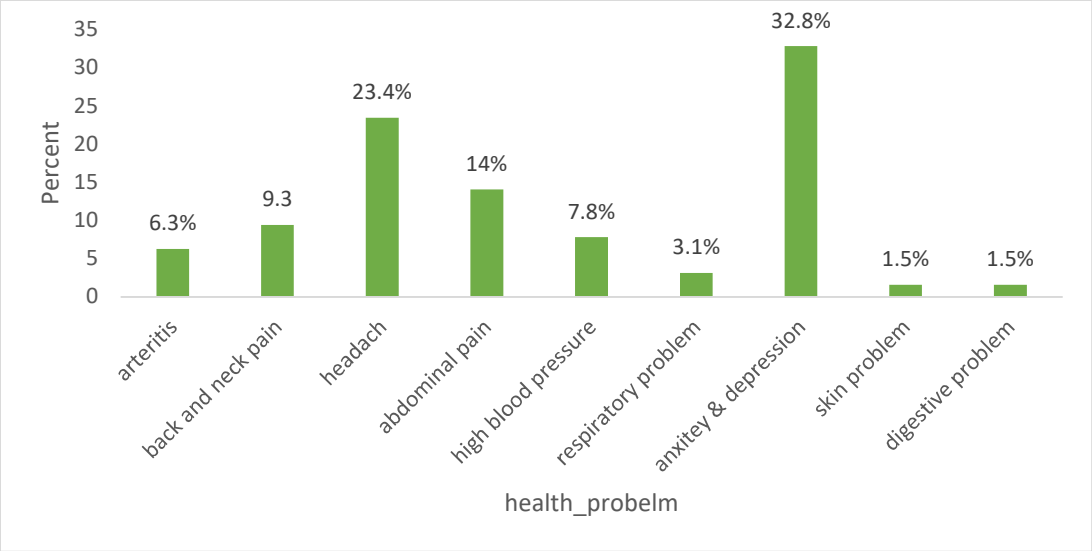

Figure 5 5: Frequency Health problems(co-morbidity) among child with cancer using CAM at TASH, AA, Ethiopia,2020)

5.5: Factors associated with Parental CAM Utilization for child with Cancer in TASH, AA, Ethiopia, 2020.

In bivariate logistic regression analysis; Residence, parental educational status, monthly income, Region, Occupation, History of Parents CAM used for themselves, Cultural Belief, Cheap in price and Health problems or comorbidity were statistically associated with parental CAM use for children with p-value <0.05 at 95% C.I. (Table 5).

After bivariate analysis only those variables which were significantly related (p-value <0.05) were entered for further multivariate analysis. After adjusting for potential confounders in multivariate logistic regression analysis; only Residence, Region, parents 'educational status, and Health problems were significantly related to parental CAM use for their children in multivariate analysis.

Parents who live in rural areas were 3 times more likely to use CAM for their children than those who are living in Urban areas [AOR= 0.34 (P. 0.04, (0.12-0.97]

Parents from the Oromia regional state were almost 5 times more likely to use CAM as compared to other regional states. [AOR= 0.19 (P. 0.01, (0.05-0.69)].

The Educational status of parents was also significantly associated with parental CAM use for children. Illiterate parents were 12 times more likely to practice CAM for children compared to

Diploma and above educated parents [AOR=12.1(P.0.02, (2.41-60.8)] and those had primary education status were 6 times more likely to practice CAM for children than Diploma and above-school educated [AOR=5.65(P.0.10 (1.51-21.0)]. But there wasn't a statistical association between Secondary school educated and CAM utilization in this study.

The Presence of Health problems(co-morbidity) was also significantly associated with parental CAM use for children in this study. The Child with co-morbidity was 5 times more likely to use CAM as compared to those who hadn't co-morbidity in addition to cancer. [AOR=4.76 (P.0.06, (4.76(1.57--14.4)].

Table 4: Bivariate and multivariate logistic regression analysis between Parent Sociodemographic characteristics Factors with Parental CAM

	Parental Use CAM							
Variables	**Yes**		**No**		**COR (95%CI)**	**P-Val**	**AOR (95%CI)**	**p-Val**
	N	**%**	**N**	**%**				
Residence								
Urban	22	17.5	29	23	0.31(0.15-.66)	0.02	**0.34(0.12-0.97) ***	**0.04**
Rural	53	42.1	22	17	1		1	
Monthly income								
<2000	26	20.6	6	48	3.98(1.50-10.5)	0.006	_	_
Above 2000	49	38.9	45	35.7	1			_
Occupation								
Employee	50	39.7	43	34.1	0.37(0.15-0.91)	0.03	_	_
Non-employee	25	19.8	8	6.3	1			
Region								
Amhara	16	12.7	4	32	2.34(0.67-8.17)	0.18	_	_
Oromia	16	12.7	25	19.8	0.37(0.15-0.89)	0.02	**0.19(0.05-0.69) ***	**0.01**
Addis Ababa	14	11.1	5	4.0	1.64(0.50-5.36)	0.41	_	**_**
Others	29	23.0	17	13.5	1		1	
Educational level								
Illiterate	24	19	5	4	6.27(1.88-20.9)	0.003	**12.1(2.41-60.8) ***	**0.02**
Primary	33	26.2	13	10.3	3.32(1.26-8.72)	0.015	**5.65(1.51-21.0) ***	**0.01**
Secondary	5	4	16	12.7	0.40(0.11-1.40)	0.15	_	
Diploma and above	13	10.3	17	13.5	1		1	
Parents CAM used themselves								
Yes	36	28.6	38	30.2	0.42(0.20-0.90)	0.02	_	_
No	15	11.4	37	19.4	1			
Cultural Belief								
Yes	17	13.5	4	3.2	3.44(1.08-10.9)	0.036	_	_
No	58	46	47	37.3	1			
Cheap in price								
Yes	21	16.7	6	4.8	2.91(1.08-7.84)	0.034	_	_
No	54	42.9	45	35.7	1			
Health problems								
Yes	48	38.1	16	12.7	3.8(1.82-8.28)	0.00	**4.76(1.57--14.4) ***	**0.006**
No	27	21.5	35	27.5	1		1	

Others= Tigeray+SNNPE 1= Reference *= p –value <0.05 (significant)

CHAPTER 6: DISCUSSION

Currently, CAM therapies are being widely used around the globe by many chronically ill patients like Cancer patients**.** This study tried to assess the prevalence and factors association of CAM Utilization among parents of children with cancer at TASH, Addis Ababa, Ethiopia.

There are currently no Ethiopia data to indicate the proportion of CAM users in the pediatric oncology setting. In this cross-sectional study, the prevalence of parental CAM Utilization for children with cancer is (59.5%). This percentage appears to be comparable with studies reported by Canada 60.5% and Turkey 58.6% (55) (56). But with other relative studies our finding is higher than previous pediatric oncology studies that showed 31% in Nigeria, 15.2% in Lebanon, and 12.4% in Italian of children with cancer, respectively (57) (58) (59).

However, these studies were carried out in western countries (Lebanon, Nigeria Italian). The variations in the prevalence of use of CAM across different regions of the globe can be explained by variations in sociocultural background and perceptions of the importance of CAM, differences in the accessibility of western medicine, and differences in the criteria used.

The high prevalence of CAM use in our study could be partially explained by the fact that the influence of traditional or cultural and belief in the effectiveness of CAM, especially herbal based traditional medicine and spiritual healing in Ethiopia. It is also a well-known fact that more than two-thirds of the Ethiopian population depend on traditional medicine for the treatment of their medical condition (17).

In addition to that, the most commonly used types of CAM therapies were spiritual or religious therapies combining 78.6% (prayer sittings,45.3%, and Holly water (Tsebel) 33.3% followed by used herbs,16%. Our study result was comparable to a study done in Saudi Arabia and South Africa (60)(61). But this prevalence study result was higher when we compare to study done in Turkey (18.9%) and Lebanon (32%) (62) (58). This might be due to in Ethiopia, A common practice to all Ethiopian religions is the assimilation of religious convictions in routine practices, with prayer and fasting being an integral piece of the culture.

Furthermore, in the present study, among those who used CAM parents above half (67.5) them was reported CAM were as a Helpful outcome for their children with cancer. This result also has

been reflected in the study and it is determined that cancer patients pray to feel psychologically relieved and most of the spiritual practices have the advantage of being safe, cheap, and easy to use though their effectiveness is not certain.

Some of the socio-demographic characteristics were significantly associated with parental CAM use for children. Adjusting for other factors, Residence was significantly associated with CAM practice in this study. Parents who living in Rural areas were 3 times more likely to use CAM for their children than those whose lives among Urban areas [AOR= 0.34 (P. 0.04, (0.12-0.97]. This was congruent with studies done in the Northwest, Ethiopia CAM uses in elder patients living with chronic diseases (63). And In the same way, in research done in Michigan (64).

This studies was different from studies done in Canada and Saudi Arabia residence (65) (66). The different may because of there was a different awareness and accesses of CAM product from one country to another country. In Ethiopia, more of the population live in rural areas and most of them were easily accesses of CAM products and inadequate accesses of modern medicine service, this makes that they turn their face on CAM product.

Parents from the Oromia regional state were almost 5 times more likely to use CAM compared to other regional states. [AOR= 0.19 (P. 0.01, (0.05-0.69)]. This is because of the Oromia Region was one of the top large population and wide rural sits and they use CAM as a primary Health care treatment relatively others region in Ethiopia in addition to this, they use herbal products as a daily life procedure due to this somewhat increased practice of CAM use (67).

Another factor that affects parental CAM practice as educational status. Parental educational status was significantly associated with parental CAM use for children in this study.

Illiterate parents were 12 times more likely to practice CAM for children compared to above Diploma and above educated parents [AOR=12.1(P.0.02, (2.41-60.8)] and those who had primary education status were 6 times more likely to practice CAM for children than Diploma and above educated [AOR=5.65(P.0.10 (1.51-21.0)]. There wasn't a statistical association between Secondary school educated and CAM utilization in this study.

This is study result was different from studies done in Iran, Calabria, and Finland were parents who use CAM for their children were higher educated (68) (40) (69). In Ethiopia most of the

people live in a rural area, although they had less access to formal education service and Health education service due to this, during medical illness they were more treatment option was to use CAM products. This result also showed that parents who didn't learn the higher status of formal educational mostly exposed to CAM product and service rather than modern medicine the reason is that what we mentioned on the above.

In the context of CAM use it has been suggested that people who use CAM either suffer from chronic conditions that might not have been treated satisfactorily by conventional medicine or have life-threatening diseases and use CAM because they are experiencing psychological distress and will try anything that might offer a cure (70).

In our study, more than half of the parents administered CAM to their children to reduce the effect of secondary Health problems (co-morbidity). The evidence for associations between these Health-related conditions and CAM use in this study was Health problems(co-morbidity) were also significantly associated with parental CAM practice for children.

Parents whom their child present co-morbidity in addition to cancer were 4 times more to use CAM [AOR=4.11 (P.0.01, (1.40-12.0)] for their children, compared to those parents of children whom their child hadn't co-morbidity in addition to cancer. This study result was parallel report studies showed in Europe (71). And this study result also were congested with a study done in the US, found that the most frequent motivation for using CAM therapies was to control symptoms such as nausea, pain, and loss of appetite for a child with cancer (72). The present study result was different from a study reported by Nigeria, found that the absence of comorbidities were the predictors of CAM use among cancer patients (73). The variations study result reported between Nigeria and Ethiopia may there were differences tradition and criteria to used CAM among those peoples.

6.1 Limitations

- A potential bias is that our patients were present across different regions of Ethiopia to TASH this make some challenge during data collection period the patient flow of referral hospital had decreased because of the pandemic condition of the country.
- The study is also limited as the sample may be biased toward those families that apply to conventional (modern) health care since the study data were collected in the waiting rooms of pediatric offices. Moreover, parents may desire not to share information about their use

of different products and thus their children's' reports may not accurately reflect their behavior.

- The fact that studies conducted so far in Ethiopia are limited on the topic, no enough literature to discuss with the Ethiopian context.
- Because the study is cross-sectional and evaluates the effect of variable of interest, no possibility to identify whether CAM practice affects the associated factors and whether there is an association or effect between variables.

6.2 Strength

- The study could be said the first in such chronic ill case particularly for cancer disease in pediatrics populations in the institution-based studies.

CHAPTER 7: CONCLUSION AND RECOMMENDATION

7.1 conclusion

In this study, CAM users were not used CAM as a single alternative to their childhood cancer care. Instead, they were typically used in a complementary manner. In the rural setting, people turn their face to self-treatment with CAM in their community based traditional methods, this is noted because of access to the CAM products in the most rural setting of Ethiopia and people who were not learn well of their formal education they were most likely exposed to CAM product during their sickness.

The patterns of comorbidity had increased among cancer patients also increase the chance of using CAM. For example, those children suffering from anxiety and depression problem conditions their parents turned to a wide range of CAM treatment modalities. The high prevalence of CAM use suggests indirectly a failure or inadequacy of health education programs. However, those factors which should be taken into account for those who were concern including health providers about these treatments' modality need special consideration. Further studies should necessary to analyze the CAM practice, effectiveness, safety, and side effects of CAM to preferred CAM therapy with modern medicine.

7.2 Recommendation

To FMOH and Policymakers

- The Controlling mechanism should be set regarding CAM healers and CAM accessibility.
- Examine coordination of services between these two diverse systems of health care; increase their knowledge of CAM, recognizing cultural, Residence and Regional factors related to use; and become involved in guideline development to maximize positive outcomes for patients with cancer who use complementary therapies.

Health care professionals

- Education, support, and counseling should be given to a client at large and particularly to the child's parents regarding CAM medicines.

To Researchers

- The effect comorbidity patients with cancer who are using CAM requires to need more extensive study.
- Further study is needed to determine the effect of independent self-treatment with CAM on the use of conventional health services and treatment for cancer.
- Further national-wide research (quantitative and qualitative) should be conducted.

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APPENDIX - 1

Information Sheet and Consent Form

PREVALENCE AND FACTORS ASSOCIATED WITH PARENTAL COMPLEMENTARY AND ALTERNATIVE MEDICINE UTILIZATION FOR CHILDREN WITH CANCER IN PEDIATRIC ONCOLOGY AT TIKUR ANBESSA SPECIALIZED HOSPITAL, ADDIS ABABA, ETHIOPIA 2020

Name of Principal Investigator: Habtamu Seife

Introduction

This information sheet and consent form is prepared by the investigator whose main aim is to study the magnitude of complementary and alternative medicine utilization and to find out to their factors associated to use among parents of children with cancer attending in Tikur Anbessa Specialized Hospital of Addis Ababa, Ethiopia, 2020. The investigator is MSc clinical oncology nursing student from Addis Ababa university.

Purpose: This research is mainly trying to look the body of evidence on CAM utilization among pediatric cancer patient growing and used with integration of conventional medicine. The same to that CAM uses by acute and chronically ill patients in Ethiopia is not only common but also culturally acknowledged. Although some CAM practices in children are useful and contributing positively and need to be strengthen, some are harmful from the perspective of health. The problem is that in Ethiopia, studies conducted so far are very limited and focused on adults, no officially governmental recognized education is provided in CAM and causing CAM was un conjugating with conventional medicine in Ethiopia.

This research result will be important to help for Parents as baseline information such the CAM therapy are help, safe, effects on their child health and quality of life and also helps for Clinician they should be discuss its use in a non-judgmental ways and educating their patients about CAM use and encouraging active conversation for the proper use of CAM.

Procedures: you are kindly invited to take part in our research because we believe you can provide the necessary information for the research. Participation into the study is on voluntary basis. If you are willing to participate in our project, you need to understand and sign the consent form. Then, you will be asked to give your response by the data collectors. All the responses given by the

participants and the results obtained will be kept anonymous and confidential. No one outside the research team will have access to your responses.

Risk and/or Discomfort: you will not face any risk in participating in this research but it might take your time and concentration while during interview with structured questionnaire time this might be uncomfortable.

Benefits: for Parents of children with cancer will be important to help as baseline information such the CAM therapy are help, safe, effects on their child health and quality of life and also helps for

Incentives: it is clearly a voluntary participation.

Confidentiality and Anonymity: The information that we will collect from this research project will be kept confidential. Information about you that will be collected from the study will be stored in a file, which will not have your name on it, and it will not be revealed to anyone except the principal investigator.

Right to Refuse or withdraw: you have the full right to refuse from participating in this research if you do not wish to participate; and this will not affect you. You have also the full right to withdraw from this study at any time you wish to, without losing any of your rights as a resident of this site.

Persons to contact for further information: If you have any question you can contact the principal investigator in the following address:

Name: Habtamu Seife

Tel: +251-913-83-64-70

Email: Habtamuseife55@gmail.com

Contact information for complaint: If you have any concern that the research team is conducting their activities unethically or inappropriately please contact Addis Ababa University school of Nursing and midwifery Department of Nursing

If you agree to participate in this study, I appreciate your truthfulness. And after having this consent form read to you, please put a sign below to show if you are willing to participate

(No need of writing your name).

Are you willing to participate in this study?

Yes [ ] No [ ]

If Yes, Signature ----------

This interview with structured questionnaire contains Three sections

Section One; Parents sociodemographic and pediatric sociodemographic with clinical characteristics

Section Two; Child sociodemographic and clinical characteristics

Section Three; Prevalence of CAM utilization and parents' reason of CAM use (Health experience)

You have a multiple option to answer under each interview questions and its possible to not respond to any of the questions you are not comfortable with. We guarantee you confidentiality.

Thank you for your cooperation

CASE NOTE NO: _____

DATE OF INTERVIEW: INTERVIEW DONE BY:

INTERVIEW DONE WITH: (Father/ Mother/ Grand Mother/ Others)

APPENDIX - II

STUDY QUESTIONNAIRE

1.1 English version

Part One; - Parents sociodemographic characteristics

1.1 Parent (care giver) sociodemographic

1) Parent sex

a) Male b) Female

2) How old are you??

3) What is your Marital status?

a) Single b) Married

c) Divorce d) Window

4) What is your religion?

a) Christianity b) Muslim

5) What is your educational level?

a) illiterate b) Primary Grade 1-8

c) Secondary Grade 9-12 d) diploma and above

6) What is your occupation?

a) Employee

b) Non-employee

7) How much your Monthly family income (ETB)?

8) Where are you living?

a) Rural b) Urban

9) Where is your Region?

a) Amhara b) Oromia

c) Addis Ababa d) Others

Part Two: Child sociodemographic and clinical characteristics

1) Sex of Child?

a) Male b) Female

2) What is the age of your child?

3) when was the time of cancer diagnosis are confirmed?

4) What was the presence of an active treatment at the time of the data collection period?

a) Surgery b) Chemotherapy

c) Radiation d) Concurrent

5) Which types of cancer has been diagnosed?

a) Carcinoma b) Sarcoma

c) Leukemia d) Lymphoma

Part Three; prevalence of CAM utilization and parents Health experience

1, Ask caregiver, have you used "Any CAM," if any type of from the following Listed (three type) 14 CAM services were used in the past year for your child? (using more than one is possible.

1, biological based therapies

a, herbal medicine

b, honey

c, animal products

d, dietary

e, natural products (vitamins and minerals)),

2, manipulative and body-based therapies

a, exercise

b, massage

c, acupuncture

d, relaxation

3, mind/body intervention, spiritual healing which includes

a, prayers

b, lighting candles

c, consuming holy water such as “Tsebel” (a type of holy water used by orthodox Christians)

d, fasting (abstinence from any food or drink)

e, listening to music.

a) Yes b) No

2) If a caregiver answer is YES, and have used CAM therapy for their children specify it is possible to choose more than one CAM type

a) One type b) Two type c) above Two type

3)Ask caregiver, have you used “Any CAM,” from the following list CAM services were used in the past year for yourself? (using more than one is possible.

(It includes various therapies such as,

1, biological based therapies

a, herbal medicine

b, honey

c, animal products

d, dietary

e, natural products (vitamins and minerals**)),**

2, manipulative and body-based therapies

a, exercise

b, massage

c, acupuncture

d, relaxation),

3, mind/body intervention, spiritual healing which includes

a, prayers

b, lighting candles

c, consuming holy water such as “Tsebel” (a type of holy water used by orthodox Christians)

d, fasting (abstinence from any food or drink)

e, listening to music.

a) Yes b) No

4) What is the reason for using CAM to your child?

a) Affordability Less cost compared CM

b) cultural belief

c) others

5) The price of CAM is a role on using for child with cancer?

a) Yes b) No

6) How was the outcome your child after used of CAM Product?

a) Very helpful b) Somewhat helpful

c) Not helpful c) Harmful

7) Would your cultural belief be one of your indication to use CAM for your child

a) yes b) No

8)Would you say your child health is excellent, good, fair, or poor?”

a) poor b) fair c) good d) excellent

9) Would your child have comorbidity?

a) Yes b) No

if the answer is Yes, specify……

****

Thank you for participating in this study. Have a nice day

1.2 በአማርኛ መጠይቅ

የመረጃ ወረቀት እና የስምምነት ቅጽ

ይህ የመረጃ ቅጽ እና የስምምነት ቅጽ የተዘጋጀው ዋና ዓላማው የተጨማሪ እና አማራጮችን የመድኃኒት አጠቃቀምን ታላቅነት ማጥናት እና ለማወቅ ነው ።

ዓላማው፤ ይህ ምርምር በዋነኝነት ለመመርመር የሚሞክር በሕፃናት ካንሰር ህመምተኛ ላይ ከተለመደው ህክምና ጋር በማቀላቀል እና ጥቅም ላይ በሚውለው የሕፃናት ካንሰር ህመምተኞች አጠቃቀም ላይ ሰፊ ማስረጃ ነው ። በኢትዮጵያ በቀላል እና በከባድ ህመም ህመምተኞች ለሚጠቀሙት ተመሳሳይ ነው የተለመዱ እና ባህላዊ እውቅናም አላቸው ። ምንም እንኳን በልጆች ውስጥ አንዳንድ የ CAM ልምምዶች ጠቃሚ እና በአዎንታዊ አስተዋፅኦ የሚያደርጉ እና ማጠናከሪያ ቢሆኑም የተወሰኑት ከጤና አንጻር ጎጂ ናቸው።

ለምርምር አስፈላጊውን መረጃ መስጠት ይችላሉ ብለን ስለምናምን በምርመራችን እንዲሳተፉ በደግነት ተጋብዘዋል ። በጥናቱ ውስጥ መሳተፍ በፈቃደኝነት ላይ የተመሠረተ ነው። በጥናት ውስጥ ለመሳተፍ ፈቃደኛ ከሆኑ የስምምነት ቅጹን መረዳት እና መፈረም ያስፈልግዎታል ። ከዚያ ፣ ምላሽዎን በሚሰበስቡት ሰብሳቢዎች እንዲሰጡ ይጠየቃሉ። በተሳታፊዎች የተሰጠው ምላሾች እና የተገኙት ውጤቶች ሁሉ በሚስጥር እና በምስጢር ይያዛሉ ። ከ ውጭ ማንም የለም ዋና መርማሪው ፤ ውድቅ የማድረግ ወይም የማስወገድ መብት በዚህ ጥናት ውስጥ መሳተፍ የማትፈልጉ ከሆነ ሙሉ በሙሉ የመቃወም መብት አለዎ ፤ እና ይሄ እርስዎን አይጎዳዎትም። እንዲሁም የዚህ ጣቢያ ነዋሪ እንደመሆንዎ መጠን ያለብዎትን መብቶች ሳያጠፉ በዚህ ጥናት ላይ በማንኛውም ጊዜ ለመልቀቅ ሙሉ መብት አልዎት ። በሚከተለው ስም እና አድራሻ መጠየቅይችላሉ

ስም ፤ ሃብታሙ ሰይፈ

ስልክ፤ 0913836470

በዚህ ጥናት ውስጥ ለመሳተፍ ተስማምተዋል ፣ እውነተኛነትዎን አደንቃለሁ ። እናም ይህ የስምምነት ቅጽ ለእርስዎ ከተነበብዎት በኋላ ለመሳተፍ (ስምዎን መጻፍ አያስፈልግም)) (በዚህ ስም ለመሳተፍ አያስፈልግም) ። በዚህ ጥናት ለመሳተፍ ፈቃደኛ ነዎት? ለማሳየት እባክዎን ከዚህ በታች ምልክት ያድርጉ፤

የለም [] አዎ (ከሆነ) ፣

ፊርማ ----------

የምርምር እና ጥናት መጠይቀቅ

ይህ መጠይቅ ሶስት ክፍሎች አሉት

1. ወላጆች የስን - ማህበራዊ አኖኖር ሁኒታዎች

2. ክፍል ሁለት; የሕፃናት የስን - ማህበራዊ አኖኖር ሁኒታዎች እና ክሊኒካዊ ባህሪዎች

3. ክፍል ሶሰት; የተጨማሪ እና አማራጭ መድሃኒት (CAM) መጠይቅ እና የወላጆች የጤና ተሞክሮ

ለእያንዳንዱ የቃለ መጠይቅ ጥያቄዎች ለጥያቄዎችዎ ለመምረጥ ብዙ አማራጭ ሊኖርዎ ይችላል እንዲሁም ለማይመችዎት ለማናቸውም ጥያቄዎች መልስ አለመስጠት ይቻላሉ ። ምስጢራዊነት እንጠብቃለን ።

ለትብብርዎ እናመሰግናለን፤፤

የጉዳይ ማስታወሻ ቁጥር _____

የቃለ-መጠይቅ ቀን- _____ ቃለ መጠይቅ የተደረገው በ_____

ቃለ መጠይቅ ከዚህ ጋር ተደረገ: (አባት / እናት / አታት / ሌሎችም)

ሌሎች ከሆኑ ይግለጹ _____

ክፍል አንድ; - ወላጆች እና የሕፃናት የስን - ማህበራዊ አኖኖር ሁኒታዎች

1) ወላጅ (እንክብካቤ ሰጪ)?

ሀ) እናት ለ) አባት

ሐ) ሌሎች

2) ወላጅ ዕታ?

ሀ) ወንድ ለ) ሲት

3) ዕድሜ?

4) የጋብቻ ሁኔታ

ሀ) ነጠላ ለ) ያገባ

ሐ) ፍቺ መ) መስኮት

4) ሃይማኖት?

ሀ) ክስቲያንት ለ) ሙስሊም

5) የትምህርት ደረጃ?

ሀ) ምንም ያልተማረ

ለ) የመጀመሪያ ደረጃ 1-8 ሐ) ሁለተኛ ደረጃ 9-12

መ) ዲፕሎማ እና ከዚያ በላይ

6) የሥራ መስክ (በኢትዮጵያ ሶሺዮ ኢኮኖሚያዊ ሚዛን መሠረት)

ሀ) ሰራ ያለው

ለ) ሰራ የሊለው

7) ወርሃዊ የቤተሰብ ገቢ

a) <2000 ብር ለ) ከ2001ብር በላይ

8) የመኖሪያ አድራሻ

ሀ) ገጠር ለ) ከተማ

9) የዘር ቡድን

ሀ) አማራ ለ) ኦሮሚያ ሐ) ኣዲስ ኣበባ መ) ሌሎች

ክፍል ሁለት; የሕፃናት የስን - ማህበራዊ አኖኖር ሁኒታዎች እና ክሊኒካዊ ባህሪዎች-(ከሆስፒታል የሕክምና መዝገብ ይሰበስባል)

1) የሕፃናት ጳታ?

ሀ) ወንድ ለ) ሴት

2) የሕፃናት ዕድሜ?

3) የካንሰር ምርመራ የታወቀበት ግዚ?

ሀ) ከ12 ወር በፊት ለ) ከ12 ወር በሃላ

4) መረጃው በሚሰበሰብበት ጊዜ ህጻኑ ከሆስፒታል እየውሰደ ያለው የሕክምና አይነት

ሀ) የቀዶ ጥገና ለ) ኬሞቴራፒ ሐ) ጨረር መ) ጥምር ሕክምና

5) ህጻኑ የትኛው የካንሰር ዓይነቶች ህመምተኛ ነው?

a) Carcinoma b) Sarcoma

c) Leukemia d) Lymphoma

ክፍል ሶስት፡ የተጨማሪ ወይም አማራጭ ሕክምናዎችን እንደሚጠቀሙ የሚያስገድደቸው ምክንያቶ (የወላጆች የጤና ተሞክሮች) መጠይቅ

1, ተንከባካቢውን ይጠይቁ ፣ ከሚከተለው ዝርዝር ውስጥ ባለፉት 12 ወር ግዚያት ውስጥ ‘‘ማንኛውንም የተጨማሪ ወይም አማራጭ ሕክምናዎችን ለልጆችዎ ጥቅም ላይ አውለው ያውቃሉ? (ከአንድ በላይ መጠቀስ የሚቻል ነው።), (ለምሳሊ እንደ ፣

1 ፣ **ባዮሎጂያዊ መሠረት ያላቸው ሕክምናዎች ፣**

ሀ ፣ የዕፅዋት መድኃኒት
ለ ፣ ማር
ሐ ፣ የእንስሳት ምርቶች
መ ፣ አመጋገብ
ሠ ያሉ የተለያዩ የሕክምና ዓይነቶችን ያካትታል] ፣ ተፈጥሯዊ ምርቶች (ቫይታሚኖች እና ማዕድናት)) ፣
2 ፣ **ማሸት እና በሰውነት ላይ የተመሠረተ ሕክምናዎች**
ሀ ፣ የአካል ብቃት እንቅስቃሴ
ለ ፣ ማሸት
ሐ ፣ አኩፓንቸር
መ ፣ማዝናናት ፣

3 ፣ **አእምሮ / የሰውነት ጣልቃ ገብነት ፣ መንፈሳዊ ፈውስ**

ሀ ፣ ጸሎቶች ማድረግ

ለ፤ ሻማዎችን ማብራት

ሐ፤ ጸበል መጠቀም

መ፤መጾም

ረ) ሙዚቃ ማዳመት

ሸ) ሌሎች ሕክምና

ሀ) አዎ ለ) የለም

2) የእንክብካቤ ሰጪው መልስ አዎ ከሆነ (ከአንድ በላይ የተጨማሪ ወይም አማራጭ ሕክምናዎች አይነት መምረጥ ይቻላል)

ሀ) አንዱን አይነት በቻ ለ) ሁለቱን አይለት ብቻ ሐ) ከ ሁለቱን አይለት በላይ

3) ተንከባካቢውን ይጠይቁ ፣ ከሚከተለው ዝርዝር ውስጥ ባለፉት 12 ወር ግዚያት ውስጥ ‘‘ማንኛውንም የተጨማሪ ወይም አማራጭ ሕክምናዎችን ለራስዎ ጥቅም ላይ አውለው ያውቃሉ? (ከአንድ በላይ መጠቀስ የሚቻል ነው።), (ለምሳሊ እንደ ፣

1 ፣ ባዮሎጂያዊ መሠረት ያላቸው ሕክምናዎች ፣

ሀ ፣ የዕፅዋት መድኃኒት
ለ ፣ ማር
ሐ ፣ የእንስሳት ምርቶች
መ ፣ አመጋገብ
ሠ ያሉ የተለያዩ የሕክምና ዓይነቶችን ያካትታል] ፣ ተፈጥሯዊ ምርቶች (ቫይታሚኖች እና ማዕድናት)) ፣
2 ፣ ማሸት እና በሰውነት ላይ የተመሠረተ ሕክምናዎች
ሀ ፣ የአካል ብቃት እንቅስቃሴ
ለ ፣ ማሸት
ሐ ፣ አኩፓንቸር
መ ፣ ዘና) ፣
3 ፣ አእምሮ / የሰውነት ጣልቃ ገብነት ፣ መንፈሳዊ ፈውስ
ሀ ፣ ጸሎቶች

ለ፤ ሻማዎችን ማብራት

ሐ፤ ጸበል መጠቀም

መ፤መጽም

ረ) ሙዚቃ ማዳመት

ሸ) ሌሎች ሕክምና

ሀ) አዎ ለ) የለም

4) የተጨማሪ ወይም አማራጭ ሕክምናዎችን ለመጠቀም ምክንያቱ ምንድነው?

ሀ) ከዋጋ ዝቅተኝነት ኣንጽር ከተለመደው ሕክምና ጋር ሲነፃፀር አነስተኛ ስለሆነ

ለ) ባህላዊ አምነታችን ስለሆነ

ሐ) ሌሎች

5) የተጨማሪ ወይም አማራጭ ሕክምናዎች ሲጠቀሙ ከዋጋ ኣንጽር ከዘመናዊው ሕክምና ጋር ሲነፃፀር ካንሰር ላለባት ልጆዎ መጠቀምን በተመለከተ ሚና አለው?

ሀ) አዎ እለው ለ) የለምውም

6) የተጨማሪ ወይም አማራጭ ሕክምናዎች ለልጅዎ ምን ያህል ኣጋዥነት ኣለው?

ሀ) በጣም ኣጋዥ ለ) በተወሰነ ደረጃ ኣጋዥ

ሐ) ኣጋዥ ያልሆነ ሐ) ጎጂ

7) ባህላዊ እምነትዎ የተጨማሪ ወይም አማራጭ ሕክምናዎች ለልጅዎ እንዲጠቀሙ የሚጠቁሙበት አንዱ ማሳያ ሊሆን ይችላል?

ሀ) አዎ ለ) የለም

8) የተጨማሪ ወይም አማራጭ ሕክምናዎች ከተጠቀሙ በኋላ የልጅዎ የጤና ሁኒታ ምን ይመስላል?

ሀ) ደካማ ለ) ሚዛናዊ

ሐ) ጥሩ መ) እጅግ በጣም ጥሩ

9) ልጅዎ ተጋዳኝ የጤና-ነክ ችግሮች ይኖረዋል ወይ?

ሀ) አዎ ለ) የለም

መልሱ አዎ ከሆነ ላይነቱን ይግለጹ……

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በዚህ ጥናት ውስጥ በመሳተፍዎ እናመሰግናለን ፡፡ መልካም ቀን