Magnitude of Cultural Malpractices And Its Associated Factors among Mothers Attending Postnatal Care Within Six Weeks After Delivery At Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia

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Magnitude of Cultural Malpractices and its Associated Factors Among Mothers Attending Postnatal Care within Six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia

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APPROVAL SHEET

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I hereby certify that I have read and evaluated this thesis entitled "Magnitude of Cultural Malpractices and its associated factors Among Mothers Attending Postnatal Care within Six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia" by Jemaludin Sadik. I recommend that it be submitted as fulfilling the thesis requirement.

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BIOGRAPHICAL SKETCH

I was born on September 01, 1983, G.C. In East Hararge Zone, Melka Belo Woreda, Eastern Ethiopia. I had started elementary School at Jaja Primary School (2001-2008.G.C.). I attend Secondary and preparatory education at Jaja secondary and preparatory school from (2009-2012). I joined Wollo University in 2013 and I attended BSc education in midwifery until I graduated in 2016 with, G.C. Then I was assigned to Guba Koricha Woreda Health Office which is found in the west Hararge zone by West Hararge Health Bureau and I'm working there for about seven years. In 2023/2024G.C, I was employed at Gumbi Bordode Woreda,Kora Health Center I have been working as Primary Health care unit Director.

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TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST of ACRONYMS AND ABBREVIATION

AOR	Adjusted Odd Ratio
ANC	Antenatal Care
ART	Antiretroviral therapy
BFHI	Baby Friendly Hospital Initiatives
CMP	Cultural Malpractice
CSA	Central Statistical Agency
IHRERC	Institutional Health Research Ethics Review Committee
IYCF	Infant and Young Child Feeding
MCH	Maternal and Child Health
MMR	Maternal Mortality Rate
MOH	Ministry of Health
NMR	Neonatal Mortality Rate
PI	Principal Investigator
PNC	Post Natal Care
SNNPR	Southern Nations, Nationalities, and Peoples' Region
SPSS	Statistical Package for Social Science
TBA	Traditional Birth Attendant
UN	United Nation
VIF	Variance Inflation Factor
WHO	World Health Organization

ABSTRACT

Background: Cultural malpractices are socially shared perspectives and traditionally accepted behaviors experienced in a certain society that harm maternal health.In Ethiopia, about 18% of infant deaths occur due to cultural malpractice. However, evidence of cultural malpractice during the postnatal period is not well understood in Ethiopia, particularly in West Hararghe. Moreover, there is no study conducted on cultural practice during the postnatal period in this study area.

Objective: To assess the magnitude and factors associated with cultural malpractice among mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, WestHararge, Eastern Ethiopia, from December 30-January 30, 2023/2024.

Methods: Institutional-based cross-sectional study design was conducted among 407 mothers attending postnatal care at Gelemso General Hospital. The study participants were selected by systematic random sampling technique. Data were collected using a pretested and structured interviewer-administered questionnaire. The collected data were entered into EpiData version 4.6 and exported to Statistical Package of Social Sciences version 27 for analysis. Descriptive statistics were computed to describe the characteristics of the participants. Bivariable and multivariable logistic regression analyses were fitted to identify factors associated with the outcome variable. Adjusted odds ratios along a 95% confidence interval were used to report the result and show the strength of the association. A p-value <0.05 was used to declare a significant association. The results were presented using figures, tables, graphs, and text.

Results: The study revealed that the magnitude of cultural malpractice during the postnatal period was 70.0% (95% CI: 65%, 74%). Lack of ANC visit (AOR= 3.3; 95% CI: 1.03, 10.27), partner's being a farmer (AOR= 7.4; 95% CI: 2.11, 26.48), distance to health facility (AOR=3.6; 95% CI: 1.68, 7.65), having greater than 5 alive children (AOR=3.5; 95% CI: 1.25, 9.84) were factors significantly associated with cultural malpractice during the postnatal period.

Conclusions and Recommendation: This study noted that more than two-thirds of participants committed cultural malpractice during the postnatal period. Therefore, emphasizing the importance of ANC follow-up, and encouraging home visits of postnatal mothers by professionals especially for those rural residents and remoter to health facilities may contribute to reducing the cultural malpractice.

Keywords: cultural malpractice, postnatal period, Gelemso Hospital, associated factors, Ethiopia

1. INTRODUCTION

1.1. Background

Cultural malpractices are defined as socially shared perspectives and traditionally accepted behaviors experienced in a certain society that harm maternal health (M. F. Melesse *et al.*, 2021c).It comprised of food taboos/restrictions, avoidance of sunlight exposure, home delivery, applying substance on the cord stump, pre-lactating feed, avoidance of colostrum, early bathing after delivery, and delaines of breastfeeding after delivery (H. Abebe et al., 2021). The postpartum period is a very special phase in the life of a woman and baby. However, cultural practices and food taboos adversely affect the daily consumption of protein, energy, and some nutrients during the first month of nursing (Venkateswarlu *et al.*, 2019).Cultural malpractices, with their numerous long-term devastating effects, are performed in all continents of the world even prevalence and degree may vary(Kahsay Zenebe *et al.*, 2016b). In various cultures, the postpartum period is a sensitive time, and various cultural practices are applied to the mother and the baby (Altuntug *et al.*, 2018). Cultural practices are often implicated in deter- mining the care received by mothers and babies during the postnatal period which is an important determinant of maternal deaths(H. Gedamu *et al.*, 2018a).

Cultural malpractices are commonly practiced during different events and age groups, especially in females and their babies which include avoiding colostrum, feeding new born, home delivery, food taboo, early marriage, marriage by abduction, giving “Koso”, keeping babies out of the sun, son preference, unsafe abortion, usage of herbal drug, application of butter and cow dung on the umbilical cord are widely practiced with no or little attention to hygiene in Ethiopia (Kahsay Zenebe *et al.*, 2016b).cultural malpractices are the main factors that prohibit women from receiving care during pregnancy, labor, and the postpartum period (H. Abebe *et al.*, 2021).Additionally, some studies have discovered that some religious components, such as religion and belief, untrained delivery attendants, and certain social and cultural factors, particularly in rural areas, are worsening the issue (Muhammad *et al.*, 2021).

Around 98% of neonatal deaths occur in developing countries, with most of the deaths occurring at home (Ochieng and Odhiambo, 2019). Early neonatal bathing causes hypothermia which has detrimental effects on hypoglycemia and mortality, which was 15.4% with hypothermia in less

developed countries (Fenta *et al.*, 2022). Avoiding colostrum, delaying breastfeeding initiation, early bathing, giving butter and/or water to the newborn, and using "Koso" are all examples of cultural malpractices during postpartum(H. Abebe *et al.*, 2021). In many low-middle-income countries, the most common pre-lacteal foods given to infants can be divided into three categories: water only, water-based (rice water, herbal, juices),and milk-based (animal milk, infant formula) (Tekaly *et al.*, 2018). Unclean tools are used to cut the umbilical cord during childbirth, and infection of omphaloi, a neonatal infection that starts in the umbilical cord is frequently found in developing nations and causes 520,000 neonatal deaths annually (Atiat *et al.*, 2018).

Delaines in healthcare-seeking behavior due to (CMP) at home lead to uterine rupture, severe bleeding, fetal distress, and finally fetomaternal death (M. F. Melesse *et al.*, 2021c). Skilled treatment can save the lives of women and newborns before, during, and after childbirth (H. Abebe *et al.*, 2021). So, assessing cultural malpractice during the postnatal period and its associated factors is an essential step to improve the problem raised by cultural malpractice during the postnatal period.

1.2. Statement of the problem

Every day, 810 women die from preventable causes related to pregnancy and childbirth, with two-thirds of maternal deaths occurring in Sub-Saharan Africa alone (H. Abebe *et al.*, 2021).Developing countries account for 99 percent of all maternal deaths. Maternal mortality shows the biggest gap between developed and developing countries(WHO, 2019).Globally, about 78 million newborns waited more than 1 hour to breastfeed, and two out of five newborns were excluded from colostrum feeding. This means that every day, about 4000 infants and young children die due to colostrum avoidance and the introduction of pre-lacteal feds, which are part of cultural malpractice. Overall, (CMP) during pregnancy, delivery, and the postnatal period killed 303,000 mothers and 2.7 million newborns each year (Hailu *et al.*, 2022).The World Medicine Situation report estimates that between 70 and 95% of the population in developing countries and more than 80% of the population in Africa use (CMP) during pregnancy (Nigussie, 2015).

In Ethiopia, (CMP) during the postnatal period accounts for about 18% of infant deaths(Wudu, 2021).Ethiopia has the highest maternal and infant mortality and morbidity rates in the world(CSA, 2020). In 2020, there were 264 maternal deaths per 100,000 live births, and 48 infant deaths per 1000 live births (CSA, 2020).Ethiopia is a country with a famous and long-standing history with its own identity. It is also a country with many useful cultural practices that include breastfeeding, postnatal care, and social gatherings such as "caring for the aged person, children and religious leader (Kahsay Zenebe *et al.*, 2016b). In contrast, (CMPs) are socially shared views and traditionally accepted behaviors experienced in a certain society that harm maternal health (M. F. Melesse *et al.*, 2021c).

Even if the WHO recommends exclusive breastfeeding for up to six months(WHO, 2020), feeding practices happen early and colostrum discharging after delivery accounts for 4000 infant deaths every day in the world(Wudu, 2021).Confronting cultural malpractice (CMP) unlike in the early 1990s only United Nations (UN) agencies and human rights groups began combating cultural malpractices, but the problem continued (H. Gedamu *et al.*, 2018a).

According to Ethiopian surveys, the magnitude of cultural malpractices during pregnancy and the postpartum period ranges between 37 and 85 percent (H. Abebe *et al.*, 2021).In Ethiopia, cultural malpractices are pervasive among women and children (H. Abebe *et al.*, 2021). Socioeconomic hardship, a lack of education, a lack of prenatal care, and a lack of health care are all factors that contribute to poor pregnancy outcomes in mothers in Ethiopia; however, it is unknown whether other factors contribute to these concerns (Kibr, 2021).Maternal age, women's empowerment, educational status, parity, societal awareness, religion, low economic status, girls' imbalanced gender relations, and distance from a health facility were found to be factors affecting (CMP) (H. Abebe *et al.*, 2021). Cultural practices and beliefs during pregnancy, childbirth, and the postnatal period have a significant impact on women's healthcare-seeking behaviors (H. Abebe *et al.*, 2021). In Ethiopia cultural malpractices during the postnatal period account for about 18% of infant mortality (Wudu, 2021). The magnitude of (CMP) has contributed to the high maternal mortality ratio(MMR), stillbirth, and neonatal mortality rates(NMR) in which delivery is attended by unskilled birth attendants (Portia *et al.*, 2020).

To tackle the issue mentioned earlier, significant advancements have been made in terms of optimal breastfeeding promotion both within the facility and local communities(Bermio and Reotutar, 2017).Breast-feeding, which is especially popular in rural areas of the country,

postnatal care, social gatherings such as "Edir" and "Ekub," and caring for the elderly, disabled, and others among the family members are all examples of good cultural practices in Ethiopia (Kahsay Zenebe *et al.*, 2016b).Abdominal massage is a cause of uterine rupture, abruption placenta, preterm labor, and fetal deaths and these are events that can harm both fetal and maternal in the short term (Simeon *et al.*, 2022)and uterine prolapsed, pelvic inflammatory disease, pain during sexual intercourse and infertility were long term effects of abdominal massage (Maria and Silfia 2020). In addition to the aforementioned, World Vision Ethiopia is currently implementing Counseling services on the Basic Health Service Package through Faith-Based Organizations, intending to contribute to the reduction of maternal and newborn morbidity and mortality by strengthening the Supportive Supervision and Primary Health Care Unit (M. F. Melesse *et al.*, 2021c). Furthermore, Ethiopia has created the National Infant and Young Child Feeding IYCF) Guideline and recognized the benefits of the Baby Friendly Hospital Initiative (BFHI), which discourages pre-lacteal feeding practices on newborns to achieve optimal breastfeeding practices (Tekaly *et al.*, 2018). Ethiopia, on the other hand, is a country where (CMP) continues to wreak havoc on the health and social well-being of mothers and children (Wudu, 2021). Even if the cultural malpractices persist, they should be minimized by interventions like health education for mothers and their families about health service utilization (Withers *et al.*, 2018).

In addition, as far as knowledge of the principal investigator is concerned, there is a dearth of information and paucity of documented evidence regarding cultural malpractices during the postnatal period and associated factors among mothers attending postnatal care both at the national level in general and in the study area in the particular. Therefore, this study aims to assess the magnitude of cultural malpractices during the postnatal period and associated factors among mothers attending postnatal care at Gelemso Hospital, Eastern Ethiopia.

1.3. Significance of the Study

The findings of the study will primarily benefit mothers in understanding the cultural malpractice which disadvantages their health and the health of their offspring, and the importance of excellent pregnancy habits and neonatal care. The findings of the study will also be used by Gelemso Hospital to develop programs to reach all pregnant women in their catchment area. It will be used by health practitioners as a starting point for dissuading potentially hazardous

attitudes and practices. It will also serve as a starting point for the department of health as it develops health services for expectant mothers.

Knowing the magnitude and factors associated with Cultural malpractice during the postnatal period will help the prevention of the problem and will have paramount implications in identifying target groups. Therefore, the rationale of this study is to provide evidence about existing constraints with CMP to policy makers and other stakeholders for further improvement of service provision in the future. It can also help as base line data or source of information for further study.

1.4. Objectives

1.4.1. General objective

To assess the magnitude and factors associated with cultural malpractice during the postnatal period among mothers who are attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso town, west Hararghe, Oromia Region, Eastern Ethiopia from December 30-January 30, 2023/2024.

1.4.2. Specific objectives

- ✓ To assess the magnitude of cultural malpractices among postnatal mothers who are attending postnatal care.
- ✓ To describe factors associated with cultural malpractices during the postnatal period among mothers who are attending postnatal care.

2. LITERATURE REVIEW

2.1. Magnitude of Cultural Malpractices during the Postnatal Period

Study in northern KwaZulu-Natal 64% of the mothers practiced these cultural food taboos(Ramulondi *et al.*, 2021).In the study carried out in rural India 52% of mothers practice culture malpractice during the postnatal period (Bhakta and Mani., 2019).In another study conducted in rural Nigeria 81.5% of mothers practice one form of unhygienic cultural procedure (Oluwayemisi *et al.*, 2018).A study conducted in shedding Woreda in the Sidama region of southern Ethiopia showed that the magnitude of cultural malpractice during the postnatal period was 94.2 % (Desalegn, 2022).According toa study conducted at Mekelle University regarding postnatal malpractice of the total study subjects, 52(17.9%) practiced pre-lacteal feeding the reason for this was that most of the participants 29(55.77%) were due to lack of breast milk, 16(30.8%) to soften the intestine and 7(13.46%) did not know the reason behind their practiced (Hadush *et al.*, 2016).A cross-sectional study conducted in the city of Wonago in the Southern region of Ethiopia showed that 29.0% of mothers practiced culture malpractice during pregnancy, labour, and postpartum, and these cultural malpractices were colostrum discarding 18.6%, application of substances on the umbilical cord stump 12.1%, delayed breast feeding 28.4%, pre- lacteal feeding 43.0% and early bathing of new-born 49.3% (Kassahun *et al.*, 2019).

Another study conducted in four zones of Southwest Ethiopia showed that the magnitude of cultural malpractices was 37% (Tesfaye *et al.*, 2022).In a community-based cross-sectional study conducted in Dire Dawa city, the magnitude of cultural malpractice during the perinatal period was 74.6% and these cultural practices were unclean material for cutting and tying the cord, early bathing and applying of materials on the cord(Hailu *et al.*, 2022).In a cross-sectional study conducted in Loma Woreda, Southwest Ethiopia 68%, 37.5%, and 72.6% of mothers committed culture malpractice during pregnancy, childbirth, and postnatal period respectively(M. B. Habte *et al.*, 2023b).Another study undertaken in the Gurage Zone southern Ethiopia showed that the magnitude of cultural malpractices was 71.4%(H. Abebe *et al.*, 2021). According to a study conducted in the Afar region, Northeast Ethiopia the magnitude of cultural malpractice like early bathing of the neonate before 24 hrs was 73.1%(Getachew *et al.*, 2022).According to study conducted in Aksum town, 10.1% of the women practice pre-lacteal feeding(Tekaly *et al.*,

2018).A community-based cross-sectional study conducted in the East Gojam zone Gozamen district showed that33.9% were delivered at home, some women practiced avoidance of colostrum, pre-lacteal feeding, and washed their baby 24 h after delivery(Y. L. Ambaw *et al.*, 2022a). The study was conducted in the Debre Berhan district North Showa, the magnitude of cultural malpractice like Prelacteal feeding were 14% (Argaw *et al.*, 2019). The study was under taken in Meshenti town around Bahirdar city, 76.1% of the mothers are undertaken cultural malpractice during postnatal period(H. Gedamu *et al.*, 2018a).In addition, other study carried out in Bahirdar city 8.8% of mothers avoids their colostrum immediately after delivery (Ayalew and Asmare, 2021).A cross-sectional study conducts in Debretabor town public health institution 25.6% of pregnant women practiced the culture malpractice, of this 29.6% of pregnant mothers delivered at home, Among home deliveries, 25.6% cut the cord using unclean materials and 5.1% did not tie cord after birth,45.6% had history of delaines of giving breast (Kahsay Zenebe *et al.*, 2016b).

2.2. Factors associated with Cultural Malpractice during the Postnatal Period.

2.2.1. Socio-demographic factors

In a study conducted in India, there was a significant association between religions and with malpractice of cultural beliefs regarding maternal, and baby care breastfeeding women during the postpartum period(Bhakta and Mani., 2019).In Nigeria, an adolescent mother was associated with less likelihood of having an unhygienic procedure and materials(Oluwayemisi *et al.*, 2018). Women who are aged more than 35 years old practice a more harmful culture than those below this age (Hailu *et al.*, 2022). On the other hand, women who aged less than 30 years, were students, house occupation, and merchants were the higher predictor of cultural malpractice than the other (M. B. Habte *et al.*, 2023b).In a study carried out in Wonago Ethiopia being illiterate and unhealthy practices were independent indicators of the outcome variable(Kassahun *et al.*, 2019)**.**Mothers with no formal education, being rural residents, were significantly associated with CMP during the postnatal period (H. Abebe *et al.*, 2021).In addition, a study was undertaken in Bahirdar Married mothers, unemployed mothers, were less likely to discard colostrum(Ayalew and Asmare, 2021).

Study conducted in the Amhara region at selected zones educational status of the respondents being unable to read and write, the husband's educational status residence, and ethnicity had

statistically significant associations with cultural malpractices during labor and delivery(M. F. Melesse *et al.*, 2021c).According to a study conducted in kefa zone of Gewata woreda the SNNPR of Ethiopia from Gewata communities regarding MCH services during pregnancy, labor, and post-partum time, the quality of services, religious principles, educational level, accessibility of services, infrastructure facilities, religious leader perceptions, and cultural views all have an impact on MCH service norms and practice during pregnancy, labor, and post-partum time (Beharu and Ayele 2021).There is another study conducted in the Pastoralist Community of Afar Region, Ethiopia agreed that there was an association between educational status and cultural malpractice (Ebabu and Muhammed, 2021). Nutritional taboos, abdomen massage, home delivery, and the avoidance of colostrum feeding to newborns were all significantly related to educational status (Nigussie, 2015).Among the factors identified to influence cultural malpractices were maternal age, women's empowerment, women's educational status, women's parity, societal awareness, religion, women's low economic status, girls' imbalanced gender relations, and distance from a health facility (H. Abebe *et al.*, 2021).

2.2.2. Culturally related factors

There are many cultural malpractices in the world during pregnancy, labor, and the postnatal period (H. Gedamu *et al.*, 2018a). According to a study conducted in Ilocos Sur, Philippines, respondents "Agree" with the belief that women should not drink cold drinks after giving birth (Beharu and Ayele 2021).Also, in another study conducted by Sanjaya Bahadur Chand in Nepal, 31% of newborns were given a bath soon after birth, 67 percent of newborns were bathed in warm water, and 15% were bathed with cold water, 14% of mothers did not feed colostrum, and most mothers (77 %) were done weaning their babies after 6 months (Ochieng and Odhiambo, 2019). According to a study of Zulu women in northern KwaZulu-Natal, the majority of women 46 percent claimed to adhere to these cultural food practices for the baby's health, followed by those who adhered to their health 21%(Ramulondi *et al.*, 2021). Furthermore, in the study conducted in Southeast Madagascar, a variety of practices are used to clean out 'dirty' blood, with some skilled attendants administering hot water douches or using equipment to spray hot water into the mother's vagina to clean it out immediately after birth. Crouching over burning charcoal may be practiced by some women to cleanse and tighten the womb (Morris *et al.*, 2014).In the postnatal period, confinement was common because postnatal women were thought to be weak, fragile, and vulnerable to illness Other common beliefs and practices across Asian countries

were, the state of pollution after childbirth, the use of traditional healers, medicine and herbs, beliefs relating to hot/cold imbalance, behavioral taboos, magic, and superstition (Withers *et al.*, 2018).Oppositely, a study from Mazandaran province in Iran indicates that cultural practices were not associated with lower odds of postpartum depression in even adjustment for all socio demographic factors (Abdollahi *et al.*, 2016).According to a study conducted in Limmu Genet Town, Southwest Ethiopia, 33 (28.4 percent) of 303 women washed their babies immediately after birth, and 26 (22.41%) did not give colostrum to their newborns (Nigussie, 2015).

In another study conducted in Debre Markos town in 2015 regarding mothers and infants sunlight exposure both are prohibited because of fear of evil spirit cold and pneumonia (Abate Abebe, 2015). According to a study conducted in Mizan-Aman Town, Prelacteal feeding, delayed breastfeeding initiation, and colostrum avoidance were all reported at around 21.9 %, 35.5%, and 15.5%, respectively and Rue/"Tenadam" was the most prevalent pre-lacteal meal, the main reasons for this were cultural activities, followed by intestinal/ghost/birth clean-ups (Wudu, 2021).

2.2.3. Obstetric and Gynecologic related factors

In Nigeria, mothers attended by skilled birth attendants at birth or delivery were associated with less likelihood of having an unhygienic procedure during delivery (Kassahun *et al.*, 2019). The study carried out in Axum town, showed that the prevalence of pre-lacteal feeding was 10.1 percent, Mothers with no previous birth history, birth spacing of less than 24 months, colostrum discarding, less than four antenatal care follow-up, those who undergo cesarean section, and those who believed in the purported benefits of pre-lacteal feeding were more likely to practice pre-lacteal feeding on their infants (Tekaly *et al.*, 2018).According to a study in Debra Tabor, South Gondar, Amhara Region, North West Ethiopia, the proportion of cultural malpractices was 25.6%, and Grand Multipara women were significantly associated with cultural malpractices (Kahsay Zenebe *et al.*, 2016b). Another study done on Determinants of pre-lacteal feeding were found to be: mothers who aware of the risks of pre-lactate feeding, multipara mothers, had ≥4 children and birth order of infants between 4 and 6,Similarly, exposure to infant formula advertising, absence of home-to-home health education, multipara mothers and spontaneous vaginal delivery were the determinants of colostrum avoidance (Wudu, 2021).Mothers in the

Gozamen district who have an antenatal follow-up, parity≥5 had a significant association with cultural malpractice during childbirth and postpartum (Y. L. Ambaw *et al.*, 2022a).

Study conducted in the Amhara region at a selected zone, pregnancy complications, and antenatal care follow-up were statistically significantly associated with cultural malpractices during labor and delivery (H. Abebe *et al.*, 2021). According to a study conducted in Limmu Genet Town, Southwest Ethiopia, 33 (28.4%) of 303 women bathed their babies immediately after birth, and 26 (22.41%) did not give colostrum to their newborns (Nigussie, 2015).In a study undertaken in Bahirdar, mothers who underwent normal delivery, and mothers who initiated breastfeeding within 1 hr. were less likely to discard colostrum (Ayalew and Asmare, 2021).

2.2.4. Maternal health care service utilization

The study conducted in Nigeria found that the distance between health facilities to utilize health services was associated with unskilled birth attendants(Ogbo *et al.*, 2020).A study was conducted in the city of DireDawa, women who did not follow ANC were more likely to practice the harmful culture compared to women who followed the ANC(Hailu *et al.*, 2022). A study conducted in Southwestern Ethiopia on women who received antenatal care (ANC) visits during their last pregnancy was significantly associated with cultural malpractices during pregnancy(Tesfaye *et al.*, 2022). In the study conducted in the Gurage zone in the southern region, mothers who had not had ANC in their last pregnancy were significantly associated with cultural malpractice during the perinatal period, access to health care or distance from health facilities was not associated with this (H. Abebe *et al.*, 2021).In a study conducted in Axum pre-lacteal feeding was more common among mothers who had fewer than four antenatal visits associated with pre-lactation feeding (Tekaly *et al.*, 2018).The study conducted in the Amhara region an area selected to follow up on antenatal care had a statistically significant association with cultural malpractices during labor and delivery (Argaw *et al.*, 2019).

2.3. Conceptual Framework

This conceptual framework has been adapted from different literature and explains the association between cultural malpractices and the independent variables. Factors associated with cultural malpractices are Socio-demographic, Cultural, maternal health care service utilization and obstetrical related factors, and awareness and related factors**.**

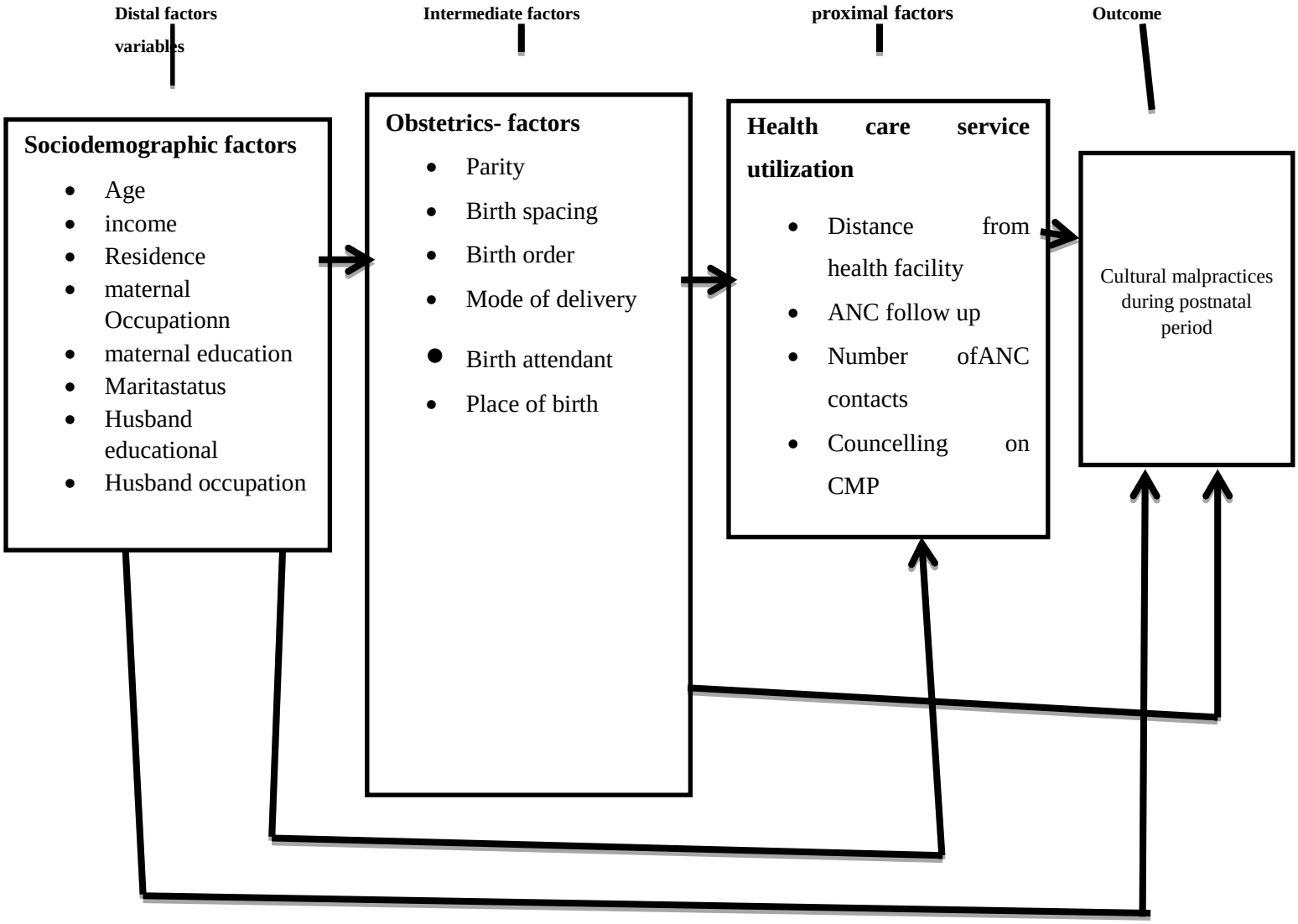

Figure 1: Conceptual framework that explains the relationship between the independent factors and Cultural malpractice

(Melesse *et al*., 2021**;(Kahsay Zenebe *et al.*, 2016b)**

3. METHODS AND MATERIALS

3.1. Study area and period

The study was conducted at Gelemso General Hospital, from December 30-January 30, 2023/2024.Gelemso Hospital is located in Habro Woreda, Gelemso town, West Hararge zone, in Oromia Region, Eastern Ethiopia. Gelemso Town is located 76 km from West Hararge Zonal town Chiro and 404 km East direction to Addis Ababa. The hospital has a catchment population of 1.6 million based on 2007 E.C. censuses, with 142 beds distributed in medical, pediatrics, surgical, gynecology, and obstetrics wards. Gelemso town is organized by 3 kebele.There is one hospital, 1health center, and eleven private clinics in Gelemso town. Gelemso Hospital is a General Hospital that provides clinical services, laboratory services, and radiology services (X-ray and ultrasound services) for inpatient and outpatient attendances coming to the hospital. The hospital provides maternal and child health cares for the people of the catchment area. The maternal and child health care units are run by an obstetrician/ gynecologist and 23 midwives.

3.2. Study design

An institutional-based cross-sectional study design was employed.

3.3. Population

3.3.1. Source population

All mothers attending postnatal care at Gelemso hospital during the study period.

3.3.2. Study Population

Those mothers who attended post-natal care within six weeks after delivery at Gelemso Hospital during the data collection period.

3.3.3. Study unit

Mothers who were randomly selected to be interviewed during the study period

3.4. Eligibility Criteria

3.4.1. Inclusion criteria

All mothers who attended PNC within six weeks after delivery at Gelemso Hospital during the study period were included.

3.4.2. Exclusion criteria

Those Mothers who are critically ill or have psychiatric problems immediately after delivery.

3.5. Sample size determination

3.5.1. Sample size determination for the first objective

The sample size was determined by using the single population proportion with the following assumption: 41.5% of postnatal mothers experience Cultural malpractices throughout their postnatal period which is taken from a related study in Dire Dawa City, Eastern Ethiopia (Hailu *et al.*, 2022) are considered parameters to calculate the sample size. Then 10% of the possible non-response rate was taken into account.

$$n = (Z\alpha/2)2 \times P\ (1 - P) / d2$$

Whereas n = minimum sample size required for the study, p = the estimated proportion of traditional malpractices during the postnatal period = (41.5%). Zα /2= the cutoff value of standard normal distribution at 95% confidence level =1.96, d = Margin of error = 5% (0.05).

$$n = \frac{(1.96)^2\ 0.415(1-0.415)}{(0.05)^2}$$

$$n = 373$$

Then 10%of non-response rate of 373, which is 37. Therefore, the final sample size was =410.

3.5.2. Sample size calculation for the second objective: The double population proportion formula is also considered to estimate the sample size for the second objective of the study. Significantly associated factors with harmful traditional malpractice during the postnatal period were considered and using Epi Info statistical software version 7.1 with the following assumption:

- Confidence level=95%
- Power=80%,
- the ratio of unexposed to exposed is almost equivalent to

Table 1: Sample size calculation for factors associated with cultural malpractice during the postnatal period at Gelemso Hospital, West Hararge, Eastern Ethiopia, 2023/2024.

Variable	Unexposed	Exposed	AOR	Sample size by adding 10%	Reference
Education status	Able to read and write (59.42%)	Unable to read and write (40.58%)	1.1	195	(Desalegn, 2022)
ANC follow up	19.86%	80.8%	3.14	84	(Desalegn, 2022)
Residence	Urban (32.7%)	Rural (67.3%)	4.41	88	(Kassahun *et al.*, 2019)

The sample sizes calculated for the second objective were lower than the sample size estimated for the first objective. Thus, the final sample size for the study was 410.

3.6. Sampling technique and procedure

Systematic random sampling was conducted by considering the list of mothers attending postnatal care and immunization wards. At Gelemso Hospital, on average, a total of 188 and 434 mothers visited the immunization ward at the Hospital as estimated from their respective MCH clinic's regular client flow and deliveries of the last 3 preceding months. The first interviewed mother was selected by a lottery method from the Kth interval and the next mothers were selected at a regular interval every 2 individuals (K=622/410=1.5~2). Then every 2-unit interval, mothers attending PNC during the study period were included in the study.

3.7. Data Collection Methods

3.7.1. Data collection instruments

A structured questionnaire was adapted and modified from relevant literature and similar studies (H. Abebe *et al.*, 2021), (Tekaly *et al.*, 2018), (Desalegn, 2022), (Kassahun *et al.*, 2019) and (Yilma, 2023).The questionnaire was prepared first in English, translated into the local language Afan Oromo to facilitate appropriateness and easy understanding by respondents, and then translated back into English by language experts to check its consistency. The questionnaire contains the socio-demographic characteristics of respondents, cultural-related factors, obstetrics-related factors, health care service utilization, and awareness-related questions.

3.7.2. Data Collectors and Supervisors

Four BSc midwives and two health officers were assigned as data collectors and supervisors respectively. Data collectors and supervisors were trained for two days on the overall objective of the study, the data collection process, ethical considerations, and how to facilitate and supervise the data collection process. Data collectors were supervised closely by the supervisor and the principal investigator daily.

3.7.3. Data Collection Procedures

Data were collected from mothers who were attending postnatal care within six weeks after delivery at Gelemso Hospital using an interviewer-administered pre-tested structured questionnaire.The women were interviewed at the postnatal unit after the discharge paper was

written for them. The participants were interviewed in a private area after informed, voluntary written and signed consent was obtained from the study participants and head of hospitals. To protect the confidentiality of the information, names, and medical record numbers were not recorded on the questionnaire. The collected data were checked daily by the supervisor to ensure the data collection process was being conducted as planned. Data collectors facilitated the data collection process by giving clarification and checking of completeness of the data.

3.8. Variables of the Study

3 .8.1.Dependent variable

Cultural malpractice during the postnatal period

3.8.2. Independent variables

Socio-demographic factors: Age, monthly income, Residence, Marital status maternal Occupation, Husband occupation, maternal Education, and Husband educational status

Obstetrics-related variables: Parity, Birth spacing, Birth order, Mode of delivery, Birth attendant, and Place of birth.

Health care service utilization: Distance from health facility, ANC follow-up, umber of ANC contacts.

Cultural-related factors: Prelacteal feeding**,** Delayed initiation of BF**,** Early newborn bath**,** Avoid colostrum**,** Avoid sunlight exposure**,** Apply substance in the center of the head**,** and Applying substance on the cord.

3.9. Operational Definitions

Cultural malpractices:if participants responded a single yes to the list (Food taboos/ Restriction, Avoid sunlight exposure, home delivery, Applying substance on the cord stump, Pre-lactating feed, Avoidance of colostrum, Early bathing after delivery, and Delaines' of breastfeeding after delivery), considered as committed cultural malpractices(H. Abebe *et al.*, 2021)

Pre-lacteal feeding:is the practice of giving liquids other than breast milk to a child during the period before the mother's colostrum gives(Kassahun *et al.*, 2019).

Postnatalperiod: In this study, it refers to the time duration of 6 weeks after giving birth(WHO, 2020).

Food taboos: refers to if there was at least one food item prohibited during the postpartum period.

Colostrum Avoidance;Mothers who avoid or discard colostrum at least once in the first three days following the birth of their child are said to be practicing colostrum avoidance(UNICEF. WHO, 2003).

Delayed initiation of BF:is when a mother failed to start breastfeeding within an hour of giving birth, or within an hour of regaining consciousness following a Caesarean section or spontaneous vaginal delivery, respectively(WHO, 1998).

3.10. Data Quality Controls

To maintain data quality we conducted pretest before the actual data collection on 5% of the total sample size at Gelemso health center. Then the critical comments were incorporated into the final data collection tool to modify and increase its quality. Two days of training were given for data collectors and supervisors on the data collection tool and the data collection procedure. Data collectors were supervised closely by the supervisor and the principal investigators. The collected data were checked for completeness, accuracy, and consistency by the principal Investigator and supervisorsdaily.The supervisors and the principal investigators made frequent checks on the data collection process to ensure the completeness and consistency of the collected data.

3.11. Data Entry and Analysis

The collected data were checked for completeness, coded, entered using Epi-Data 4.6 version, and then exported to SPSS 27 for analysis. Descriptive statistics like simple frequency, mean and standard deviation were computed to describe a characteristic of the study participants. The results were then presented using frequencies, tables, and figures. The outcome variable was coded as “1” for malpractice whereas “0” for others.

Binary and multivariable logistic regression analysis was used to examine the association between independent variables and cultural malpractice. To control the effect of confounding factors, all variables with p-values less than 0.25 in Bivariable analysis were taken in the final model Multivariable analysis. To check the presence of multi-co-linearity, we run the VIF and Tolerance test. As a result, no variables with VIF >10 and tolerance test <0.1 were found. The Hosmer-Lemeshow and the Omnibus test were used to test the model's goodness of fit. The

model was declared to be a good fit since the result was found to be insignificant for the Hosmer-Lemeshow test (p=0.21) but significant for the Omnibus test (p=0.000). The strength and direction of statistical association were measured by an adjusted odds ratio with 95% CI. Lastly, in multivariable regression, available with a P-value ≤ 0.05 will be declared as having a statistically significant association with the outcome variable.

3.12. Ethical Consideration

Ethical approval was obtained from the Institutional Health Research Ethics Review Committee (IHRERC) of the College of Health and Medical sciences of Haramaya University. An official letter was also secured for Gelemso Hospital. Before conducting the study, informed, voluntarily, written and signed consent was obtained from the study participants and head of Gelemso Hospital. Respondents were informed that they had the right to refuse or withdraw from the study at any time if they so desired. Participants were also informed about the attainment of confidentiality of the information they provided.

4. RESULTS

4.1. Socio-Demographic Characteristics

Of the total 410 sampled participants, 407 women from the postnatal and immunization ward participated in the study, yielding a response rate of 99.3%. The mean age of the respondents was 28.5±5.7 with age ranges of 44 years. Three-fifth, 248(60.9%) of the study participants did not attend formal education, while only, 175(43%) of their partner were not attended formal education. Regarding occupational status, the majority, 320 (78.6%) of the participants were housewives and nearly half of them, 231(56.8%) had a household income of less than 2000. **(Table 2)**

Table 2: Sociodemographic characteristics of mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia(n=407).

Variable	Frequency	Percentage
Age		
16-24 years	95	23.3
25-34 years	246	60.4
>34 years	66	16.2
Religion		
Muslim	319	78.4
Christian	88	21.6
Marital status		
Married	371	91.2
Divorced	17	4.2
Others*	19	4.7
Residence		
Rural	291	71.5
Urban	116	28.5
Level of mother's education		
No formal education	248	60.9
Primary education	83	20.4
Secondary education	57	14.0
Higher education	19	4.7
Occupational status of the mothers		
Government employee	16	3.9
Housewife	320	78.6
Merchant	59	14.5
Others**	12	2.9
Level of husband's education		
No formal education	175	43.0
Primary education	118	29.0
Secondary education	70	17.2
Higher education	44	10.8
Occupational status of husbands		

Government employee	54	13.3
Farmer	218	53.6
Merchant	13	3.2
Private organization	13	3.2
Daily laborer	24	5.9
Monthly income in ETB		
<2000	196	48.2
2000-4000	83	20.4
>4000	128	31.4
Distance to the health facility		
<1hr	142	34.9
≥1hr	265	65.1
Number of alive children		
≤5	269	66.1
>5	138	33.9

ETB: Ethiopian Birr; others*: single and widowed; others**: private organization and daily laborer;

4.2. Obstetric and Gynecologic characteristics of study participants

Of the total study participants, nearly two third, 266(65.4%) of participants were multipara, they had given birth 1 to 4 times. Nearly all, 398 (97.8%) of the respondents gave birth through spontaneous vaginal delivery. Regarding birth interval, more than half of the respondents, 232(57.0%) had given birth in less than 24 months. Of the total participants, nearly three fourth, 294(72.2%) had ANC follow-up. Of those who had ANC follow-up, one-third, 94(33.7%) of the participants attended ANC three times or less, and only, 177 (60.2%) of them received counseling regarding CMP during their visits. **(Table 3)**

Table 3: Obstetric-related characteristics of mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia(n=407).

Variables	Frequency	Percentage
ANC follow up		
Yes	294	72.2
No	113	27.7
Number of ANC visits (n=294)		
≤three	137	46.6
Four and above	157	53.4
Parity		
Primiparous	107	26.3
Multiparious	159	39.1
Grand multiparous	141	34.6
Birth interval		
<24 months	232	57.0
>=48 months	127	31.2
Had no previous birth	48	11.8

Received counseling about CMP (n=294)		
Yes	177	60.2
No	117	39.8
Mode of deliveries		
SVD	398	97.8
C/S	9	2.2
Time of breastfeeding initiated after delivery		
Within one hour	248	60.9
Within 1 to 24 hours	154	37.8
After 24 hours	5	1.2

ANC, Antenatal Care: C/S, Cesarean Section; SVD, Spontaneous Vaginal Delivery; CMP: Cultural Malpractice

4.3. Types and Reasons for Engaging in Cultural Malpractice

Of the total participants, nearly half of the respondents, 187(45.9%) did not expose their newborns to sunlight and more than half of them, 111(59.4%) mentioned the fear of evil spirits as a common reason for not exposing. Two hundred fifty-nine (60.3%) of respondents bathed their neonates in less than 24 hours. Slightly more than two-thirds, 276 (67.8%) of respondent put substances on the stump of their newborns. The most common substance mentioned to be put on the umbilicus cord was butter (69.2%). Slightly more than three-fifths, 259(63.6%) of respondents gave liquids other than breast milk to a child before the mother's colostrum was given. The majority of them, 259(93.8%) reported that putting a substance on the umbilical cord prevents stump infection. **(Table 4)**

Table 4: Cultural malpractice-related characteristics of mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia(n=407).

Variables	Frequency	Percentage
Place of delivery		
Health Facility	328	80.6
Home delivery	79	19.41
Avoid Colostrum		
Yes	103	25.3
No	304	74.7
Bathed newborns		
Less than 24hrs	259	63.6
After 24hrs	148	36.4
Avoid exposure to sunlight.		
Yes	187	45.9
No	220	54.1
Reason for not exposed to sunlight (n=187)		
Fear of cold	56	29.9
Fear of evil spirit	111	59.4

Being busy	20	7.7
Apply a leaf of pepper.		
Yes	224	55.0
No	183	45.0
Gave dough for newborns		
Yes	179	44.0
No	228	56.0
Apply lemon water to the center of the newborn head.		
Yes	200	49.1
No	207	50.9
Substance put on umbilical cord		
Yes	276	67.8
No	131	32.2
Types of substance put on umbilical cord (n=276)		
Butter	191	69.2
Vaseline	81	29.3
Cow dung	4	1.4
Reason for putting a substance on the umbilical cord (n=276)		
Prevention of umbilical stump infection	259	93.8
Soften intestine	4	1.4
Doesn't know the reason	13	4.7
Practiced Prelacteal feeding		
Yes	259	63.6
No	148	36.4
Reason for practicing pre-lacteal feeding (n=259)		
Prevention of mental problem	116	44.8
Prevention of abdominal cramps	139	53.7
For infant health	4	1.5

4.4. Magnitude of Cultural Malpractice during the postnatal period

In this study, of the total study participants, 285(70.0%) (95% CI: 65.3, 74.4) respondents committed at least one type of cultural malpractice during the postnatal period. The most common reasons mentioned for practicing cultural malpractice were the prevention of stump infection, the prevention of abdominal cramps, and fear of evil spirits. **(Figure 1)**

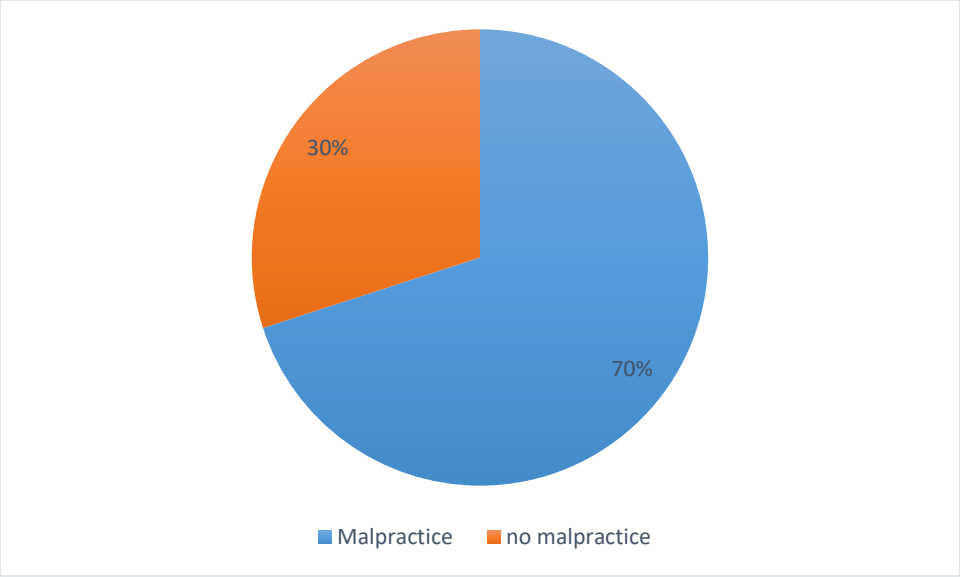

Figure 2: Magnitude of cultural malpractice among mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia(n=407).

4.5. Factors Associated with Cultural Malpractice

4.5.1 Bi-variable Logistic Regression Analysis

In Bivariable logistic regression, eleven variables were associated with the outcome variable at p value less than 0.2. These variables were maternal age, residence, maternal education, maternal occupation, paternal occupation, monthly income, parity, ANC, distance to health facility, number of alive children, and the type of profession who attended the delivery. **Table 5**

Table 5: Bivariable Logistic regression analyses of factors associated with Cultural mal-practice among mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia (n=407).

Variables (n=407)	Cultural Malpractice		COR (95% CI)	P-value
	Yes (%)	No (%)		
Maternal Age				
15-24	57 (60.0)	38 (40.0)	1	1
25-34	176 (71.5)	70 (28.5)	1.67(1.02, 2.75) *	0.04
≥34	52(78.8)	14(21.2)	2.47(1.20, 5.08) *	0.01
Residence				
Rural	249(85.6)	42(14.4)	13.17(7.90, 21.97)**	0.00
Urban	36(31.1)	80(68.9)	1	1
Maternal education				
Not attended formal education	206(83.1)	42(16.9)	8.39(5.81, 18.19)	0.00
Primary school	57(68.7)	26(31.3)	8.22(2.48, 17.20)	0.00
Secondary school	18(31.6)	39(68.4)	1.73 (0.50, 5.96) **	0.44
Diploma and above	4(21.1)	15(78.9)	1	**1**

Maternal occupation				
Government employee	4(25.0)	12(75.0)	1	1
Housewife	260(81.1)	60(18.6)	9.00(4.05,17.71)**	0.00
Merchant	16(27.1)	43(72.9)	1.11(0.31, 3.97)	0.86
Others*	5(41.7)	7(58.3)	2.14(0.43, 10.74)	0.35
Paternal occupation				
Government employee	16(29.6)	38(70.4)	1	1
Farmer	208(95.4)	10(4.6)	11.40 (8.85, 20.02)**	0.00
Merchant	4(30.8)	9(69.2)	1.05 (0.28, 3.93)	0.94
Private organization	8(61.5)	5(38.5)	2.08 (1.05, 4.12)	0.04
Daily laborer	16(66.7)	8(33.3)	1.08 (1.09, 5.32)	0.00
Place of delivery				
Health facility	224(68.3)	104(31.7)	1	1
Home delivery	61(77.2)	18(22.8)	1.57 (0.88, 2.79)	0.00
Number of delivery (parity)				
<5 times	157(59.0)	109(41.0)	1	1
≥ 5 times	128(90.8)	13(9.2)	6.84 (3.67, 12.72) **	0.00
Number of alive children				
<5	161(59.9)	108(40.1)	1	1
≥5	124(89.9)	14(10.1)	5.94 (3.25, 10.87)**	0.00
The time it takes to reach a nearby health facility.				
<1hr	47(33.1)	95(66.9)	1	**1**
≥1hr	238(89.8)	27(10.2)	7.82 (6.49, 13.26)	0.00
Had ANC follow-up				
Yes	172(59.7)	116(40.3)	1	**1**
No	113(95.0)	6(5.0)	12.70 (5.40, 19.84)	0.00
House Hold Income				
<2000	143 (73.0)	53(27.0)	1.32 (0.81, 2.14)	0.27
2000-4000	56 (67.5)	27 (32.5)	1.01 (0.56, 1.83)	0.97
>4000	86 (67.2)	42 (32.8)	1	1

Others* private and daily laborer; and TBA: Traditional Birth Attendant

4.5.2 Multivariable Logistic Regression

However, in the final model of multivariable logistic regression analysis, predictor variables like paternal occupation, ANC, distance to health center, and number of alive children were independently associated with cultural malpractice.

Accordingly, women whose husbands occupations were farmers were7 times (AOR= 7.41; 95% CI: 2.11, 26.48) more likely to be involved in cultural malpractice than women whose husband was Government employee. Likewise, the odds of participating in cultural malpractice were 3 times(AOR= 3.25; 95% CI: 1.03, 10.27) higher among women who lack ANC follow-up as compared to their counterparts. Furthermore, women who traveled ≥1hr to reach the health facility were 3.6 times (AOR=3.58; 95% CI: 1.68, 7.65) more likely to participate in cultural malpractice compared to those who traveled <1 hr. Finally, the likelihood of participating in

cultural malpractice among mothers who had ≥5 alive children was 3.5 times (AOR=3.5; 95% CI: 1.25, 9.84) higher than mothers who had <5 alive children. **(Table 6**)

Table 6: Multivariable Logistic regression analyses of factors associated with Cultural malpractice among mothers attending postnatal care within six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia(n=407).

Variables (n=407)	Cultural Malpractice		COR (95% CI)	AOR (95% CI)
	Yes (%)	No (%)		
Maternal Age				
15-24	57 (60.0)	38 (40.0)	1	1
25-34	176 (71.5)	70 (28.5)	1.67(1.02, 2.75) *	1.50 (0.72, 3.15)
≥34	52(78.8)	14(21.2)	2.47(1.20, 5.08) *	0.44 (0.13, 1.56)
Residence				
Rural	249(85.6)	42(14.4)	13.17(7.90, 21.97)**	1.58(0.67, 3.72)
Urban	36(31.1)	80(68.9)	1	1
Maternal education				
Not attended formal education	206(83.1)	42(16.9)	8.39(5.81, 18.19)	1.49(0.30, 7.33)
Primary school	57(68.7)	26(31.3)	8.22(2.48, 17.20)	2.65 (0.51, 13.75)
Secondary school	18(31.6)	39(68.4)	1.73 (0.50, 5.96) **	1.27(0.27 5.90)
Diploma and above	4(21.1)	15(78.9)	1	**1**
Maternal occupation				
Government employee	4(25.0)	12(75.0)	1	1
Housewife	260(81.1)	60(18.6)	9.00(4.05,17.71)**	0.92(0.17, 4.92)
Merchant	16(27.1)	43(72.9)	1.11(0.31, 3.97)	0.31(0.05, 1.81)
Others*	5(41.7)	7(58.3)	2.14(0.43, 10.74)	0.62(0.07, 5.54)
Paternal occupation				
Government employee	16(29.6)	38(70.4)	1	1
Farmer	208(95.4)	10(4.6)	11.40 (8.85, 20.02)**	**6.41(2.11, 12.48)***
Merchant	4(30.8)	9(69.2)	1.05 (0.28, 3.93)	1.73(0.37, 8.06)
Private organization	8(61.5)	5(38.5)	2.08 (1.05, 4.12)	2.02 (0.77, 5.24)
Daily laborer	16(66.7)	8(33.3)	1.08 (1.09, 5.32)	1.02 (0.45, 4.27)
Place of delivery				
Health facility	224(68.3)	104(31.7)	1	1
Home delivery	61(77.2)	18(22.8)	1.57 (0.88, 2.79)	0.29 (0.94, 1.01)
Number of delivery (parity)				
<5 times	157(59.0)	109(41.0)	1	1
≥ 5 times	128(90.8)	13(9.2)	6.84 (3.67, 12.72) **	1.39(0.42, 4.59)
Number of alive children				
<5	161(59.9)	108(40.1)	1	1
≥5	124(89.9)	14(10.1)	5.94 (3.25, 10.87)**	**3.51 (1.25, 9.84)***
The time it takes to reach a nearby health facility.				
<1hr	47(33.1)	95(66.9)	1	**1**
≥1hr	238(89.8)	27(10.2)	7.82 (6.49, 13.26)	**3.58 (1.68, 7.65)***
Had ANC follow-up				
Yes	172(59.7)	116(40.3)	1	**1**
No	113(95.0)	6(5.0)	12.70 (5.40, 19.84)	**3.25 (1.03, 10.27)***

*Significant with p-value <0.05 a; **Significant with p-value <0.001: Others*private org and daily Laborer and TBA: Traditional Birth Attendant

5. DISCUSSION

This study showed that 70% of women practiced cultural malpractice in Gelemso town during their post-natal period. Putting substances on the umbilical cord, bathing newborns in less than 24 hr, and applying leaf of pepper were the most commonly mentioned cultural malpractices during the postnatal period. Multivariable logistic regression results showed that not having an ANC visit, Husband's occupation being a farmer, distance to health facility, and having more than 5 alive children were significantly associated with cultural malpractice.

The proportion of malpractice during postnatal in the present study was similar to the studies carried out in southwest Ethiopia 72.6%(Mahilet Berhanu Habte *et al.*, 2023a). But, the present finding is higher than the study conducted in Dire Dawa City (41.5%)(Hailu *et al.*, 2023a), northwest Ethiopia (21.6%) (K Zenebe *et al.*, 2016a), Gozamen District Ethiopia (31.5%) (Yeshinat Lakew Ambaw *et al.*, 2022b), while the finding of this study was lower than the study conducted in Meshet Town Northwest Ethiopia (76.1%)(Haileyesus Gedamu *et al.*, 2018b), andGoa India 97.5% (Vernekar *et al.*, 2021).This discrepancy could be justified by the fact that there was a variation in the tool used to measure malpractice between the studies. The other possible explanation for the discrepancy is the place where the studies were conducted. For example, the present study was conducted at a health facility while the rest were conducted at the community level(Yeshinat Lakew Ambaw *et al.*, 2022b; Haileyesus Gedamu *et al.*, 2018b; Mahilet Berhanu Habte *et al.*, 2023a). Variations in sample size, study population, and study time also may contribute to the differences in an estimation of cultural malpractice. Therefore, health professionals should take into account the possibility of detrimental cultural practices when evaluating a woman's clinical health during prenatal care visits, childbirth, and postpartum visits

In this study, the occupational status of the husband being a farmer is significantly associated with committing cultural malpractice during postpartum. This finding is consistent with studies conducted in Loma Woreda, Southwest Ethiopia (Mahilet Berhanu Habte *et al.*, 2023a; H. Abebe *et al.*, 2021), and Northern Karnataka India (Udgiri and Nethra, 2018). The systematic review conducted in Ethiopia (Gelaw *et al.*, 2024) also supports this finding which states that Rural-dwelling women were more likely to participate in cultural malpractice after giving birth. A possible explanation could be the fact that in the Ethiopian context, the majority of farmers are rural residents. As a result, women from rural areas are often dependent on cultural norms, have

limited access to media, and may not have easy access to information. In addition, Women living in rural areas lack access to information that could help them make decisions about healthy behaviors, such as promotion and education of maternal and child health(Misganaw Fikrie Melesse *et al.*, 2021b).

In the present study, we found a strong association between Lack of ANC follow-up and cultural malpractice. This finding is supported by previous studies conducted in Northwest Ethiopia (Gelaw *et al.*, 2024; H. Abebe *et al.*, 2021; MMF Melesse *et al.*, 2021a),Ghana (Otoo *et al.*, 2015), which reported women who did not have ANC follow-up up more likely to engage in malpractice. This may be explained by the fact that women who have received ANC services at a health facility are likely aware of the dangers and complications associated with CMP(Gelaw *et al.*, 2024).Nevertheless, this outcome did not align with a study conducted in Turkey (Ayaz and Yaman Efe, 2008). This discrepancy may result from variations in the infrastructure of health services' accessibility and availability.

The odds of committing cultural malpractice during postnatal were significantly higher among mothers who had five or more live children compared to their counterparts. This finding is in line with studies conducted in Eastern and Northwest Ethiopia (Hailu *et al.*, 2023b; K Zenebe *et al.*, 2016a),Nepal (Dhakal *et al.*, 2018), Turkiye (Ayaz and Yaman Efe, 2008).This could be explained due to social norms and values which probably make them continue their practice because of misconceptions about traditional malpractice from previous deliveries experiences(Mahilet Berhanu Habte *et al.*, 2023a).

The odds of committing cultural malpractice among mothers who traveled more than 1hrs to reach the health facility were higher than mothers who traveled less than 1 hrs to reach the health facility. This result is in line with a systematic review conducted by Mseke and his colleagues (Mseke *et al.*, 2024), in which they stressed travel time and distance are crucial factors for people living in rural and remote areas to access health services. A scoping review from Ethiopia also states that people from remote communities found it difficult to get to health facilities (Miller *et al.*, 2021). This could be explained by the fact that care-seeking behavior is structurally impeded by the distance to a healthcare facility due to great distances and lack of transportation, particularly ambulances (Oldenburg *et al.*, 2021).

6. STRENGTH AND LIMITATION

Strength of the study: This study used primary data that may reduce the number of missing important factors. The study also attempted to identify important factors of cultural malpractice during the postnatal period.

Limitations: this study is not without some limitations, since we used self-reporting (interview response) to collect the data which may lead to recall bias. Another limitation of the study is that it may not be generalizable to the whole population of the catchment area, since it was restricted to health facilities, which excluded mothers who had no postnatal visits.

7. CONCLUSION AND RECOMMENDATIONS

7.1. Conclusion

This study noted that more than two-thirds of participants committed cultural malpractice during the postnatal period. Being a farmer, Lack of ANC follow-up, having more than 5 alive children, and distance to health facilities were significantly associated with engaging in cultural malpractice during the postnatal period. Therefore, emphasizing the importance of ANC follow-up, and encouraging home visits of postnatal mothers by profession especially for those rural residents and remoter to health facilities may contribute to reducing the cultural malpractice.

7.2. Recommendations

Based on the study findings the following recommendations are forwarded:

To West Hararghe Zonal health offices

- ✓ Should work with the concerned stakeholders on comprehensive intervention strategies to strengthen ANC follow-up.
- ✓ The zonal health bureau should emphasize community education to alleviate misconceptions about traditional malpractice.
- ✓ To reduce the prevalence of cultural malpractice stakeholders working on maternal and child health should focus on identified factors.

To health professionals of the Hospitals

- ✓ Should work in collaboration with health extension workers to provide education to women on the impact of cultural malpractice and its consequences.
- ✓ Health care practitioners should assess pregnant women for unhealthy habits.
- ✓ Should encourage home visits by professionals or health extension workers especially for rural residents and distance to health facilities.

To other researchers

Do further investigations employing different approaches to explore the consequences of cultural malpractice.

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7. ANNEXES

7.1. Information Sheet and Consent Form for Head of Hospital.

My name is**:** Jemaludin Sadik. I am working as principal investigator of the study to be conducted in Gelemso Hospital.I am studying for my Master's degree at Haramaya University, the College of Health and Medical Sciences. I kindly request you to lend me your attention to explain you about the study and your institution being selected as the study setting.

The Study/projecttitle: Magnitude of Cultural Malpractice during Postnatal Period and associated factors among Mothers Attending Postnatal Care within Six weeks after delivery at Gelemso General Hospital, Gelemso Town, West Hararge Zone, Oromia, Eastern Ethiopia.

Purpose/aim of the study: The findings of the study will primarily benefit mothers to understand the Cultural malpractice which disadvantage their health and the health of their offspring, and the importance of excellent pregnancy habits and Neonatal care. The findings of this study can be of a paramount importance for the Gelemso Hospital to develop programs to reach all pregnant women in their catchment area andplan intervention programs to prevent Cultural Malpractice during Postnatal Period.It will be used by health practitioners as a starting point for dissuading potentially hazardous attitudes and practices. It will also serve as a starting point for the Department of Health as it develops health services for expectant mothers.

Knowing the magnitude and factors associated with Cultural malpractice during postnatal period will help the prevention of the problem and will have paramount implication in identifying target groups. Therefore, the rationale of this study is to provide evidence about existing constraints with Cultural malpractice to policy makers and other stakeholders for further improvement of service provision in future. It can also help as base line data or source of information for further study.Moreover, the aim of this study is to write a thesis as a requirement for the partial fulfillment of master's program in General public Health.

Procedure and duration: I will be interviewing mothers attending postnatal care through trained data collectors using questionnaire to provide me a relevant data that is helpful for the study. There are 41 questions to answer where the data collectors will fill the questionnaire by interviewing the mothers. The interview of each mother will take about 40 minutes. So I kindly ask them to spare their time with me.

Risks and benefits: The risk of participating in this study is very minimal, but only taking few minutes from mothers'/care givers' time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for the local health planners and implementers.

Confidentiality: The information participants will provide us will be confidential. There will be no information that will identify participants in particular. The finding of the study will be general to the study participants and will not reflect any thing particular of individual person or housing. The questionnaire will be coded to exclude showing names and other specific identity. No reference will be made in oral or written reports that could link participants to the research.

Rights: Participation for this study will be fully voluntary. Participants have the right to declare to participate or not in this study. If they decide to participate, they have the right to withdraw from the study at any time and this will not label for any loss of benefits which they otherwise entitled. Participants do not answer any question that they do not want to answer.

The Gelemso Hospital has also the right to stop this study from being conducted if any misdeeds and unethical procedures are observed during the data collection process in the Hospital's premises.

Contact Address: If there are any questions or enquires any time about the study or the procedures, please contact with the following addresses**:**

Principal investigator: Jemaludin Sadik

Mobile phone of the principal investigator: +251910137010

Email address of investigator: Jemaludinsadik072@gmail.com

If you have any doubt about this research you can contact the responsible Institutional Health research Ethics Review Committee (IHRERC) Haramaya University, College of Health and Medical Sciences Institutional Research Ethical Review Committee: Office phone: 0254662011 and P.O.Box: 235, Harar**,** Ethiopia.

Declaration of informed voluntary consent:

I have read the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of

participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that participants have the right to withdraw from the study at any time or not to answer any question that they do not want. I am also informed that the Hospital has the right to stop this study from being conducted if any misdeeds and unethical procedures are observed during the data collection process in the Hospital's premises. Therefore, I declare my voluntary consent on behalf ofGelemso General Hospital management to allow this study to be conducted in our Hospital with my initials (signature).

Name and Signature of Head of the Hospital:_____ _____ Date _____

Name and Signature of the PI:_____ _____ Date _____

7.2. Participant Information Sheet & Informed Consent Form for mothers/care takers (English Version) (aged>=18 years).

My name is ……,I am working as data collector in a study conducted by Jemaludin Sadik who is studying for his master's degree at Haramaya University, the College of Health and Medical Sciences.

I kindly request you to lend me your attention to explain you about the study and being selected as the study participant.

The study/project title: Magnitude of Cultural malpractice during postnatal period among mothers attending postnatal care within six weeks after delivery at Gelemso Hospital, west Hararge Zone, Oromia, Ethiopia.

Purpose/aim of the study: The findings of the study will primarily benefit mothers to understand the Cultural malpractice which disadvantage their health and the health of their offspring, and the importance of excellent pregnancy habits and Neonatal care. The findings of this study can be of a paramount importance for the Gelemso Hospital to develop programs to reach all pregnant women in their catchment area and plan intervention programs to prevent Cultural Malpractice during Postnatal Period. It will be used by health practitioners as a starting point for dissuading potentially hazardous attitudes and practices. It will also serve as a starting point for the Department of Health as it develops health services for expectant mothers.

Knowing the magnitude and factors relate with Cultural malpractice during postnatal period will help the prevention of the problem and will have paramount implication in identifying target groups. Health workers should change attitude of the community towards modern health service system**.** Health workers should have to take up active role of women's health education on the significance of ANC visit and institutional delivery.

Therefore, the rationale of this study is to provide evidence about existing constraints with Cultural malpractice to policy makers and other stakeholders for further improvement of service provision in future. It can also help as base line data or source of information for further study.

Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's Program in General public Health for the principal investigator.

Procedure and duration: I will be interviewing you using a questionnaire to provide me with pertinent data that is helpful for the study. There are around 41 questions to answer where I will

fill the questionnaire by interviewing you. The interview will take about 40 minutes so I kindly request you to spare me this time for the interview.

Risks and benefits: The risk of being participating in this study is minimal, only taking 45 minutes from your time. There would not be any direct payment for participating in this study. But the findings from this research may found important information for the local health planners.

Confidentiality: The information you will provide us will be confidential. There will be no information that will identify you in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons or housing. The questionnaire will be coded to exclude showing names other specific identity. No reference will be made in oral or written reports that could link participants to the research.

Rights: Participation for this study is fully voluntary. You have the right to declare to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at any time and this will not label you for any loss of benefits which you otherwise entitled. You do not answer any question that you do not want to answer.

Contact address: If there are any questions at any time about the study or the procedures, please contact by this address:

Principal Investigator: Jemaludin Sadik

Mobile phone of the principal investigator:+251910137010

Email address of investigator: **J**emaludinsadik072@gmail.com

Institutional Health Research Ethics Review Committee (IHRERC) at office—Phone: 0254662011 or **P.O.Box**: 235, Harar, Ethiopia

Declaration of informed voluntary consent:

I have read/ was read to me/ the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw from the study at any time or not to answer any question that I do not want. Therefore, I declare my voluntary consent to participate in this study with my initials (signature).

Name and signature of participant: _____ _____ Date _____

Name and signature of Data Collector: _____ Date _____

7.3. Participant Information Sheet & Informed Consent Form for mothers of Minors (English version)(Age<18 years).

My name is ……..,I am working as data collector in a study conducted by Jemaludin Sadik who is studying for his master's degree at Haramaya University, the College of Health and Medical Sciences. Your daughter is randomly selected to be participant in this study.I kindly request you to lend me your attention to explain you about the study and the daughter's participation.

The study/project title: Magnitude of Cultural malpractice during postnatal period among mothers attending postnatal care within six weeks after delivery at Gelemso Hospital, west Hararge Zone, Oromia, Ethiopia.

Purpose/aim of the study: The findings of the study will primarily benefit mothers to understand the Cultural malpractice which disadvantage their health and the health of their offspring, and the importance of excellent pregnancy habits and Neonatal care. The findings of this study can be of a paramount importance for the Gelemso General Hospital to develop programs to reach all pregnant women in their catchment area and plan intervention programs to prevent Cultural Malpractice during Postnatal Period. It will be used by health practitioners as a starting point for dissuading potentially hazardous attitudes and practices. It will also serve as a starting point for the Department of Health as it develops health services for expectant mothers.

Knowing the magnitude and factors relate with Cultural malpractice during postnatal period will help the prevention of the problem and will have paramount implication in identifying target groups. Health workers should change attitude of the community towards modern health service system**.** Health workers should have to take up active role of women's health education on the significance of ANC visit and institutional delivery.

Therefore, the rationale of this study is to provide evidence about existing constraints with Cultural malpractice to policy makers and other stakeholders for further improvement of service provision in future. It can also help as base line data or source of information for further study.

Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's Program in General public Health for the principal investigator.

Procedure and duration: I will be interviewing your daughter using a questionnaire to provide me with pertinent data that is helpful for the study. There are around 41 questions to answer where I will fill the questionnaire by interviewing her. The interview will take about

40minutesTherefore, I kindly request you to spare me this time and allow me perform this procedure on your daughter.

Risks and benefits: The risk of participation of your daughter and her child in this study is very minimal; but only taking few minutes from her time. There would not be any direct payment for participating in this study. But the findings from this research may found important information for the local health planners.

Confidentiality: The information your daughter will provide us will be confidential. There will be no information that will identify her in particular. The findings of the study will be general for the study community and will not reflect anything particular of individual persons or housing. The questionnaire will be coded to exclude showing names or other specific identity. No reference will be made in oral or written reports that could link participants to the research.

Rights: Participation for this study is fully voluntary. You have the right to declare to allow your daughter and her child to be involved in this study or not. If you would allow them for this study, you have the right to withdraw them from the study at any time and this will not label you/your daughter for any loss of benefits which you/your daughter otherwise are entitled. She does not have to answer any question that she does not as well.

Contact address: If there are any questions at any time about the study or the procedures, please contact by this address: Principal Investigator: Jemaludin Sadik, **Mobile phone:** +251910137010, **Email address of investigator:** Jemaludinsadik072@gmail.com

Institutional Health Research Ethics Review Committee (IHRERC) at office—Phone: 0254662011 or **P.O.Box**: 235, Harar, Ethiopia.

Declaration of informed voluntary consent: I have read/ was read to me/ the participant information sheet. I have clearly understood the purpose of the research, the procedures, the risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw my daughter from the study at any time or not to answer any question that she does not want. Therefore, I declare my voluntary consent to allow my daughter to participate in this study with my initials (signature).

Name and signature of parents/guardians: _____ _____ Date _____

Name and signature of Data Collector: _____ Date _____

7.4.Participant information sheet and informed voluntary consent form for mothers (Afan Oromo version)(age>=18 years).

Duraan dursee Nagayaa isiin gaafachaa ani maqaan koo_____jedhamaa Gaheen Kooragaa funaanuudha. Kunis qorannooobbo Jamaludin Sadiqin barnoota isaani digrii lammaffaa Yuuniversiitii Haramayaa, Koollejjii Fayyaa fi Meedikalaa irraa Ebbifamuuf hojatamudha. Dursee kanan isin gaafadhu waa'ee qorannichaa waanan isiniif ibsuuf yaadaan akka na dhaggeeffattaniifii irratti hirmaattankabajaa fi ulfinaan isin gaafadha.

1. **Mata dureen qorannoo kanaa:**qorannoo hojii aadaa miidhaa geessisu yeroo dahumsaa boodaa haadholii hospitaala Galamsotti kunuunsa dahumsaa boodaa hordofan biratti mulaatan adda bafachuu.

2 **Barbaachisummaa qorannoo kanaa:**Argannoon qorannichaa adda durummaan haadholiin Aadaa fayyaa isaani fi daa'imaan isaani miidhu, fi barbaachisummaa amala ulfaa gaarii fi kunuunsa Daa'immanii hubachuufni fayyada. Argannoon qorannichaa Hospitaala Galamsoo sagantaalee dubartoota ulfaa naannoo isaani jiran hunda bira ga'uuf kan itti fayyadamu ta'a.
Ogeeyyii fayyaatin ilaalchaa fi barmaatilee midhaa geessisuu danda'uu dubartoota fi daa'imaan irraa ittisuuf akka ka'umsaattini gargaara. Akasumaas, tajaajila fayyaa haadholii ulfaa'aniif waan qopheessuuf kutaa fayyaa ka'umsa ta'eni tajaajila.

Hojjettoonni fayyaa ilaalcha hawaasni sirna tajaajila fayyaa ammayyaa irratti qabu jijjiiruu fi barbaachisummaa Dawaannaa hordooffi da'umsa dura fi da'umsa dhaabbilee fayyaa irratti barnoota fayyaa dubartoota akka barsisaanif ni gargaara.Kana malees, qorataa muummichaaf Sagantaa Maastarsii Fayyaa galmaan ga'uuf akka barbaachisummaa gartokkeetti barruu qorannoo (thesis) barreessuuf olaa.

3**. Adeemsa fi turtii qorannoo kanaa:**Ani gaaffilee adda addaa waanan si gaafadhuuf raga dhugaa irratti hundaa'eefii qorannichaaf gargaaru akka naa laattaniifi. Kanan si gaafadhuufdeemu hanga gaaffii 41 yoo ta'u walii galatti hanga daqiiqaa 40 fudhata, kanaaf yeroo kee akka naaf laattuuf kabajaa fi ulfinaan isin gaafadha.

4. **Miidhaa fi Bu'aan qorannoo Kanaa:**Qorannoo kana keessatti hirmaachuu keetiif faayidaan kallattiin siif kennamus hinjiru akkasumas miidhaan sirra gahu baay'ee xiqqaadha kunis yeroo

qabdu keessaa daqiiqaa 40 kennuun alatti kan hinjirre ta'uu hubachuu qabda. Garuu bu'aan qorannoo kanaa namoota karoora baasaniif ragaa barbaachisaa ta'a.

5. **Iccitii**: Odeeffannoon ati naaf kennitu icciitiin isaaniegamaa. Ragaan kamuu addatti baasee waa'ee kees ta'ee kan nama dhuunfaa ibsu hin jiraatu. Gaaffileen gaafatamtu lakkoofsa addaa kennammeefii waan jiruuf maqaan kee hin barbaachisu. Ragaan si qorannoo wajjiin addatti baasee ibsu tokkollee hin jiraatu.

6. Mirgaa gaafatamaa: Qorannoo kana keessatti hirmaachuun fedhinaa kee irratti hundaa'a. Yoo hirmaachuuf murteessite, gaaffii fi deebii kennitu yeroo barbaaddetti addaan kutuu dandeessa, kana jechuun faayidaan ala taate jechuu miti. Gaaffii fi deebii keessatti gaaffii hin barbaadneef deebii kennuu diduuni dandeessa.

7**. Odeeffannoo fi Gaaffii dabalataa Yoo barbaaddaan: Obbo Jamaludin Sadiq Lakkoofsi Mobayilaa** 0910137010

Email:jemaludinsadik072@gmail.com

Haramaya Yuuniversiitiitti koree qorannoo fayyaa fi seera qabeessa isaa hordofu.

Dhaabbata Fayyaa Seera qorannoo irratti Xinxalaa gaggeessan (IHRERC)

Bilb.0254660708. Lakkoofsa Saanduqa poostaa 235, Harar, Itoopiyaa. Karaalee kanaan yaada kee dhiyeessu nidandeessa.

8. Ibsa waliigaltee fedhiinnaa keesaniin Hirmaachu

Ani waraqaa ragaa hirmaattotaa dubisee naaf dubifamee jira. Ifati kaayyoo qorannichaa, adeemsa, miidhaa,bu'aan, Iccitii, mirgaa fi lakkoofsa yeroo rakkoon uumamee fi gaaffiin jiraate ittiin qunnamu argadheen jira. Carraa gaaffii naaf hin gallee yeroo kamittuu gaafachuu danda'uu fi yeroon barbadetti qorannichaa keessaa itti bahuu danda'u naaf kennamee jira. Kanaaf, ani walii galtee qorannichaa keessatti ittiin hirmaadhu mallattoo kootiin akka armaan gadiitti nan mirkaneessa.

Maqaa fi Mallattoo hirmaattuu_____ Guyyaa_____

Maqaa fi mallattoo raga funaanaa_____ Guyyaa _____

Galatoomaa!

7.5. Participant information sheet and informed voluntary consent form for mothers of Minors (Afan Oromo Version)(Age<18 years).

Duraan dursee nagayaa isiin gafadhaa ani maqaan koo_____jedhamaa Gaheen Koo ragaa funaanuudha. Kunis qorannooobbo Jamaludin Sadiqin barnoota isaani digrii lammaffaa Yuuniversiitii Haramayaa, Koollejjii Fayyaa fi Meedikalaa irraa Ebbifamuuf hojatamudha. Dursee kanan isin gaafadhu waa'ee qorannichaa waanan isiniif ibsuuf yaadaan akka na dhaggeeffattaniifii irratti hirmaattankabajaa fi ulfinaan isin gaafadha.

1. **Mata dureen qorannoo kanaa:** qorannoo hojii aadaa miidhaa geessisu yeroo dahumsaa boodaa haadholii hospitaala Galamsotti kunuunsa dahumsaa boodaa hordofan biratti mulaatan adda bafachuu.

2 **Barbaachisummaa qorannoo kanaa:** Argannoon qorannichaa adda durummaan haadholiin Aadaa fayyaa isaani fi daa'imaan isaani miidhu, fi barbaachisummaa amala ulfaa gaarii fi kunuunsa Daa'immanii hubachuuf ni fayyada. Argannoon qorannichaa Hospitaala Galamsoo sagantaalee dubartoota ulfaa naannoo isaani jiran hunda bira ga'uuf kan itti fayyadamu ta'a.
Ogeeyyii fayyaatin ilaalchaa fi barmaatilee midhaa geessisuu danda'uu dubartoota fi daa'imaan irraa ittisuuf akka ka'umsaatti ni gargaara. Akasumaas, tajaajila fayyaa haadholii ulfaa'aniif waan qopheessuuf kutaa fayyaa ka'umsa ta'e ni tajaajila.

Hojjettoonni fayyaa ilaalcha hawaasni sirna tajaajila fayyaa ammayyaa irratti qabu jijjiiruu fi barbaachisummaa Dawaannaa hordooffi da'umsa dura fi da'umsa dhaabbilee fayyaa irratti barnoota fayyaa dubartoota akka barsisaanif ni gargaara. Kana malees, qorataa muummichaaf Sagantaa Maastarsii Fayyaa galmaan ga'uuf akka barbaachisummaa gartokkeetti barruu qorannoo (thesis) barreessuuf olaa.

3**. Adeemsa fi turtii qorannoo kanaa:**intala keessan Gaaffilee qorannoo kanaaf barbaachisan waanan gaafadhuuf raga dhugaa irratti hundaa'eefii qorannichaaf gargaaru akka na laattuuf. Kanan ishee gaafadhuuf deemu hanga gaaffii 41 yoo ta'u walii galatti hanga daqiiqaa 40 fudhatu waan ta'eef yeroo kana akka na laattaan isinii fi isheen kabajaa fi ulfinaan isin gaafadha.

4. **Miidhaa fi Bu'aan qorannoo Kanaa:** Qorannoo kana keessatti hirmaachuuf faayidaan intalli keessani fi daa'imni ishee kallattiin argataan hin jiru akkasumas miidhaan isaan irraa gahu baay'ee xiqqaadha kunis yeroo ishee irraa daqiiqaa muraasa qofa fudhachuudha. Garuu bu'aan qorannoo kanaa namoota karoora baasaniif ragaa barbaachisaa ta'a.

5. **Iccitii**: Odeeffannoon intalli keessan nuuf kennitu icciitiin isaa ni egamaa.Ragaan kamuu addatti baasee waa'ee ishees ta'ee kan nama dhuunfaa ibsu hin jiraatu. Gaaffileen gaafatamtu lakkoofsa addaa kennammeefii waan jiruuf maqaan hin barbaachisu. Ragaan ishee qorannoo wajjiin addatti baasee ibsu tokkollee hin jiraatu.

6. Mirgaa gaafatamaa: Qorannoo kana keessatti hirmaachuun fedhinaa kee irratti hundaa'a. Intalli kee fi daa'imni ishee qorannoo kana irraatti akka hirmaatan hayyamuufis ta'e dhorguu nidandeessaan. kana jechuun intalli kee fi daa'imni ishee faayidaan ala tahaan jechuu miti. Gaaffii fi deebii keessatti gaaffii hin barbaadneef deebii kennuu diduu ni dandeessaan.

7**. Odeeffannoo fi Gaaffii dabalataa Yoo barbaaddaan: Obbo Jamaludin Sadiq Lakkoofsa Mobayilaa** 0910137010

Email:jemaludinsadik072@gmail.com

Haramaya Yuuniversiitiitti koree qorannoo fayyaa fi seera qabeessa isaa hordofu.

Dhaabbata Fayyaa Seera qorannoo irratti Xinxalaa gaggeessan (IHRERC)

Bilb.0254660708. Lakkoofsa Saanduqa poostaa 235, Harar, Itoopiyaa. Karaalee kanaan yaada kee dhiyeessu ni dandeessa.

8. Ibsa waliigaltee fedhiinnaa keesaniin Hirmaachu

Ani waraqaa odeeffannoo hirmaattotaa dubisee/ naaf dubifamee Ifati hubadheera.kaayyoo qorannichaa, adeemsa, miidhaa, bu'aa, Iccitii, mirgaa hirmaachuu fi lakkoofsa yeroo rakkoon uumamee fi gaaffiin jiraate ittiin qunnamu argadheen jira.yeroon barbaaadetti intala koo qo'annoo keessaa baasuu fi dhiisuu koo mirga akkan qabu hubadheera. Carraa gaaffii isheef hin gallee yeroo kamittuu gaafachuu fi yeroo barbadetti qorannichaa keessaa itti bahuu dandeessuu nuuf kennamee jira. Kanaaf, intalli koo qorannoo kana irrati akka hirmaattuu mallattoo kootiin nin mirkaneessa.

Maqaa fi Mallattoo maatii/guddistuu_____ Guyyaa_____

Maqaa fi mallattoo raga funaanaa_____ Guyyaa _____

Galatoomaa!

7.6. Data collection tools: English version questionnaires

Questionnaire to collect data for the study to be done on "magnitude of cultural malpractices and Associated Factors Among mothers attending postnatal care at Gelemso General Hospital, west Hararge,Oromia,East Ethiopia".

Code No----------

Part I:Socio-demographic characteristics of respondent

S.NO	Question to respondent	Response category	Remark
101	How old are you?	……years	
102	What is your level of education?	1. Unable to read and write 2. Able Read and write (but do not attended formal education) 3. Grade 1-4 completed 4. Grade 5-8 completed 5. Grade 9 -12 6. Diploma and above	
103	What is your occupation?	1. Housewife 2.Government employed 3. Private organization employed 4. Merchant 5. Daily laborer 6.Others	
104	Current marital status	1. Single 2.Married 3.Widowed 4.Divorced 5. Separate	
105	What is your husband's educational level?	1. Unable to read and write 2. Read and write (but do not attended formal education) 3. Grade 1-4 completed 4. Grade 5-8 completed 5. Grade 9 -12 6. Diploma and above	
106	What is your husband's occupation?	1.Government employed 2.Private organization employed 3.Merchant 4. Daily laborer 5. Other (specify	
107	How much is your monthly income in ETB?	----------	

108	What is your Ethnicity?	1.Oromo 2.Amhara 3.Tigre 4.Gurage 5.Other specify	
109	Where is your place of residence?	1.Urban 2.Rular	

PART II: Obstetrical and Gynecology related factors

S.No.	Question of respondent	Response category	Remark
201	How many children do you have currently?	-------	
202	What is the birth order of this newborn?		
203	Who is attending your child Birth?	1.TBA 2. HCP	
204	Do you receive counseling concerning CMP during your ANC visits?	1.Yes 2.No	
205	Where do you give birth of this Newborn?	1.Hospital 2.health center 3.home	
206	What is your mode of delivery?	1. Normal/vaginal 2. C/S	
207	How many delivery have you ever had(parity)		
208	What is your time of birth spacing in month?		

Part III: Cultural malpractice during postnatal period

S.NO	Question to respondent	Response category	Remark
301	Have you ever practiced CMP before?	1.Yes 2. No	
302	If yes question number 301 specify types of CMP	1.uvulectomy 2.apply substance on cord 3.prelacteal feeding 4 .avoid sunlight exposure 5.avoiding colostrum 6.others	
303	If yes question number 301 what is the reason?	1.prevention of diarrhea 2.prevention of fever 3.it has been done by our parents/grandparents 4 for energy, strength and growth	

304	What practice are you put on umbilical cord?	1.Butter 2.Cow dung 3.Soil 4.Vaseline 5.nothing	
305	What is given for newborn immediately after birth?	1.Butter 2.Cow milk 3.Water 4.Dough 5.Breast milk	
306	What is the reason to apply substances on the umbilical cord?	1. lack of breast milk 2. soften intestine 3. not know the reason	
307	What is the reason for Prelacteal feeding?	1. for "Dhengiyuu" 2. clean neonate bowel\mouth/throat 3.for infant health	
308	When do you wash newborn baby immediatetely after birth?	1.Immediately (within1 hour) 2. Within 1-24hours 3. After 24 hours 4.other (specify)_____	
309	Do you give the first liquid (colostrum) that came out from your breasts for new born?	1.Yes 2.No	
310	If "no" for question number 309what is the reason?	1. For baby's health 2. Breast feeding problem 3. Maternal medical illness 4. Religious issue 5. if other ,specify	
311	Do you expose the newborn to sun light?	1.Yes 2.No	
312	If no question number 311 what is the reason?	1.fear of cold 2.fear of evil sprit 3.because I am busy 4.other specify	
313	Why do you apply leaf of pepper in the center of your newborn head?	1.prevention of drop of uvula 2.prevention of diarrhea 3.prevention of evil eye 4.other (specify)_____	
314	Why do you provide dough for your newborn baby?	1. for deforming newborn 2. for "Dhengiyuu" 3.for prevention of fever 3.4.others specify	
315	Why do you apply lemon water in the center of your	1.prevention of pneumonia 2.prevention of drop of uvula	

	newborn head?	3.prevention of 'Hudufor' 4.. others specify	

Part IV: Reason of Cultural malpractice during postnatal period among Mothers attending postnatal care at Gelemso Hospital, 2023.

S.NO	Question to respondent	Response category	Remark
401	What was Reason to be practiced the CMP?	1.Maternal illness 2.Neonatal health/growth 4.For labor/ delivery 5.Inadequate breast milk 6.Because it was culture 7.Others	
402	Who Influence you to be practicing the CMP?	1.My self 2.Husband 3.Husband/ Her mother 4.other family/neighbors 5.Others	

Part V: Maternal health care service utilization during postnatal period among Mothers attending postnatal care at Gelemso Hospital, 2023.

S.NO	Question to respondent	Response category	Remark
501	How much time it takes you to reach the nearby Health facility?(in hr.)		
502	Do you get ANC service during your pregnancy?	1.Yes 2.No	
503	If you get ANC service, from where do you get the service?	1.Hospital 2. Health center 3.Private clinic 4.others specify	
504	How often do you get ANC service?		

7.7. Afan Oromo Version of Questionnaires/data collection instrument

Koodii _____

KutaaI: Gaaffilee Ragaa bu'uuraan walqababatuu

Lakk.	Gaaffilee	Deebii	**Ibsa**
101	Umriin (Haadha ykn tajaajiltuu) Waggaa meeqa?	Waggaa…..	
102	Sadarkaan barnootaa keessan Hangamii	1. barresuu fi dubisuu hin danda'uu 2.barresuu fi dubisuu nin danda'aa,Garuu barnoota idilee hin barannee 3. kutaa1-4 xumuree	

		4.kutaa 5-8 xumuree 5. kutaa 9 -12 xumuree 6. Dippiilomaa fi isaa ol	
103	Yoo heerumte ta'e hojiin abbaa mana keeti maalii?	1.hojaataa mootumma 2.dhabbaata dhufaan Ramadamee 3.hojii guyyaaguyyaa 4. Daldalaa 5. Kan biroo ibsii	
104	Galiin ji'aa maatii keessani giddu-galeessaan meeqa?	1.Qarshii Etiyoopiyaatiin _____ 2.Hinbeeku	
105	Amaantiin kee maalii?	1.Muslimaa 2.Ortodoksii 3.Pirootestantii 4.Kaatolikii 5.kan biroo ibsii	
106	Sabnii kee maalii?	1.Oromo 2.Amhara 3.kan biroo ibsii	
107	Bakkii jireenyaa kee essaa?	1.Magaalaa 2.Badiyaa	
108	Haala fuudhaa fi heerumaa keessan naaf ibsii	1. Qeenxee 2.kan heerumte 3.kan irraa du'ee 4.kan hikkaattee	
109	Sadarkaan barnoota abbaa mana keetii akkam turee?	1. barresuu fi dubisuu hin danda'uu 2.barresuu fi dubisuu ni danda'aa,Garuu barnoota idilee hin barannee 3. kutaa1-4 xumuree 4.kutaa 5-8 xumuree 5. kutaa 9 -12 xumuree 6. Dippiilomaa fi isaa ol	
110	Hojiin keessan (Haadha /tajaajiltuu) Maalii?	1. Haadha manaa 2. Hojattuu mootumma 3. Dhabbata dhunfaa 4. Daldaaltuu 5. kan biroo ibsi	

Kutaa II: Gaaffilee Kutaa Walhoormataan walqababatuu

Lakk	Gaaffiilee	Deebii	Darbii
201	Yeroo ammaa ijoollee meeqaa qabda?		
202	Tartiiba daa'imaa reefuu dhalatee maalii?		
203	Yeroo daa'imaa kana deessee eenyuu si gargaaree?	1.Ogeettii aadaa 2.Ogeessaa fayyaa	

		3. Kan biroo ibsi	
204	Yeroo Dawaannaa kunuunsa dahumsaa duraa kessaanitti aadaamiidhaa geessisu ilaalchisee gorsaa argaattaniittu?	1.eeyyeen 2.lakki	
205	Daa'imaa kanaa essaati deessee	1.Hospitalaa 2.buufataa fayyaa 3.Kilinikaa dhunfaa 4. mana	
206	Haallii dahumsaa daa'imaa reefuu dhalatee kanaa maal turee?	1.karaa umaama 2.dhosuudhaan	
207	Yeroo meeqaa deessee beekta?	Lakkoofsan……	
208	Da'imma kana, da'imma duraa waliin ji'a hangamii addaan fageessitee deessee?	1. >ji'a24 2< ji'a 24	

KutaaIII:Gaffiilee Shaakalaa aadaa miidhaa geessisu yeroo dahumsa boodaan walqababatuu

Lakk	Gaaffiilee	Deebii	Darbii
301	Kana duraa aadaa miidhaa geessisu shaakaltee beekta?	1.Eeyyeen 2.Lakki	
302	Yoo gaaffiin Lakkoofsi 301 eeyyeen jattee gosoota aadaa miidhaa geessisu ibsii	1.akkuma Daa'imni dhalateen qaama dhiquu 2.nyaata duraa nyachisuu 3.Hubaa qonqoo muruu 4.Silga dhorguu	
303	Yoo gaaffiin Lakkoofsa 301 eeyyeen jattee sababni isaa maal turee?	1.Garaa kaasaa ittisuuf 2. Leydaa ittisuuf 3.haqisaa ittisuuf 4.guddiinaf	
304	Daa'imni ergaa dhalatee handhuura irratii maal goota?	1.Dhadhaa 2.Dhoqqee lonii 3.Biyyee 4.Vaasilinii 5.homaa hin godhuu	
305	Daa'imaareefuu dhalatee battaluma dhalateeboodaamaaltu kannamaaf	1.Dhadhaa 2.Aannaan looni 3.Bishaan 4.Irshoo 5.humaa hin kannuu	
306	Sababni mulaatan nyaata filannoon duraa maalii?	1.garaa kaasaa ittisuuf 2.garaachaa/Afaan /qonqoo Daa'imaa qulquulessuuf 3.Dhengiyuudhaaf	
307	Sababniwantoota handhuura daa'imaa reef dhalatee irraatti dibamuuf maal turee?	1.hanqina aannan harmaa 2.garaa lafisuuf 3.sababa hin beeku 4.Rammoo ittisuuf	

		5.kan biro ibsii	
308	Daa'imaa reefuu dhalatee yoom dhiqxa?	1.dhalatee sa'ati tokko keessati 2 Sa'aati1-24keessatti 3.sa'aati 24 boodaa 4.kan biroo ibsii_____	
309	Dhangala'aa jalqabaa harmaa kee keessaa ba'uu daa'imaa ammaa dhalateef ni kannitaa?	1.Eeyyeen 2.Lakki	
310	Yoo gaaffiin Lakkoofsa 309 lakki jattee sababni isaa maal turee?	1.Fayyaa Daa'imaaf 2.rakkoo harmaa hoosisuu 3.Dhukkubbihaadha 4.dhimma amantii 5.kan biroo ibsii	
311	Daa'imaa ammaa dhalatee ifa aduuti ni baastaa	1.Eeyyeen 2.Lakki	
312	Yoo gaaffiin Lakkoofsa 311 lakki jattee sababni isaa maalii?	1.sodaa qorra 2.sodaa shexxana 3.sababni isaa ani hojiin qaba 4.kan biroo ibsii	
313	Maaliif baala barbaree sammuu daa'imaa keeti irrati goota?	1.Hubnii qonqoo akka hin buneef 2.garaa kasaa ittisuuf 3. sodaa shexxana 4.Michii sombaa ittisuf 5.kan biroo ibsi	
314	Daa'imaa kee kan ammaa dhalateef irshoo maaliif kannitaaf ?	1.Rammoon akka hin cinineef 2. Dhengiyuudhaf 3.guba/Leydaa ittisuuf 4.kan biroo ibsii	
315	Mataa Daa'imna kee kan ammaa dhalatee irraati maaliif cunfaa loomii/xuxxoo naqxaa?	1.Hubnii qonqoo akka hin buneef 2. Michii sombaa ittisuuf 3. Hudufor ittisuf 4..kan biroo ibsi	

KutaaIV: Hubannoo hirmaattota qorannoo waa'ee Shaakala Aadaa Miidhaa Yeroo dahumsa boodaa haadholii Hospitaala Galamsoo keessati kunuunsa dahumsa boodaa irratti hirmaatan biratti mulaatu, 2023.

Lakk	Gaaffiilee	Deebii	Darbii
401	Sababni shaakala aadaa miidhaa geessisuu maalii?	1.Dhukkubbii haadhaa 2.Fayyaa/guddinaa daa'imaanif 3.Aannan harmaa gahaa ta'uu dhabuu	

		4 .sababni isaa aadaa waan tureef 5.kan biroo ibsi	
402	Kan Aadaa miidhaa geessisu akka shaakalamuu sirratti dhiibbaa uumuu eenyuu?	1.ofii koo 2.Abbaa mana koo 3.Abbaa/haadha koo 4.Ollaa 5.kan biroo ibsi	

Kutaa V: Tajaajila kunuunsa fi fayyadamaa fayyaatin walqabatan

S.NO	Question to respondent	Response category	Remark
501	Mana yaalaa sinitti dhiyoo jiru tookko deemuf yeroo hagamii sinitti fudhata?(in hr.)	_____hr	
502	Yeroo ulfaa kunuunsa dahumsaa duraa argattee?	1.Eyyee 2.Lakki	
503	Yoo tajaajila kunuunsa dahumsaa duraa argattee tajaajila essaa argattee?	1.Hospitala 2.buufata fayyaa 3.Kilinikaa dhunfaa	
504	Yeroo meeqaa tajaajila kunuunsa dahumsaa duraa argattee?	1.Tokko 2.Lamaa 3.Sadii 4.Afuur 5.Shanii fi isaa ol	

7.8. Principal Investigator Curriculum Vitae (CV)

Full Name: Jemaludin Sadik Kebira Age: 32 Sex: Male

Date of Birth SEP 1983 EFY

Place of Birth Melka Belo Woreda East Hararge, Oromia Region, Ethiopia
Marital Status Married
Nationality Ethiopia
Health Status Normal
Contact information Address
Email: jemaludinsadik072@gmail.com
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Undergraduate study
I was graduated from Wollo University
Date of Graduate: on July 3/2016 with BSC degree in Midwifery
Qualification: BSC degree in Midwifery.
Working Experience: I had been worked at Guba Koricha Woreda,Kiltu annani health center from 2009-2012 years E.C and 2013… working at hardim health center at MCH,Delivery,EPI AND Family planning clinics. In addition to this I had been worked primary health care unit directors for five years.
I had been receive different training, BEMONC,Comprehensive abortion care,comprehensive Family planning ,newborn care,community based management of acute malnutrition ,Infant young and child feeding ,Fistula (Pelvic organ prolapse),integrated LOGISTIC pharmaceutical supply (IPLS),Ethiopian Primary health care clinical guideline organized by college of health and medical sciences,Haramaya University from June 6-9,2022 at Haramaya University-CMHS CPD CENTER .
Language Proficiency

Language	Listening	Speaking	Reading	Writing
Afaan Oromo	Excellent	Excellent	Excellent	Excellent
Amharic	Excellent	Excellent	Excellent	Excellent
English	Very Good	Good	Good	Good

SKILL
Basic Computer Skill
Education

Year (EFY)	Award	Name of Institution
1993-2000	elementary school	Jaja primary school
2001-2002	secondary school	Jaja secondary and preparatory school
2005-2008	higher education	Wollo University