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# Cultural malpractices during pregnancy, child-birth and postnatal period among women of child bearing age in Loma Woreda, Southwest Ethiopia



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## ABSTRACT

*Background:* Every day nearly 810 women died from preventable causes related to pregnancy and childbirth. Sub-Saharan Africa shares two-thirds of the world's maternal mortality ratio. World health organization recommends skilled care to save the lives of women and newborns. However, cultural malpractice is a common practice in developing countries like Ethiopia. So this study intends to determine the prevalence of cultural malpractice during pregnancy, childbirth and postnatal period and associated factors.

*Method:* A community-based cross-sectional study was conducted in Loma district southwest Ethiopia from February to June 2018. A sample of 387 reproductive-age women who gave birth in the last two years was included using a systematic sampling technique. Data were collected using pretested structured interviewer-administered questionnaire. A multivariable logistic regressions model was used to identify independent predictors of cultural malpractice. Significance association was declared by AOR at 95% confidence and p-value <0.05.

*Result:* A total of 387 participants were involved in the study yielding a response rate of 100%. The prevalence of cultural malpractice during pregnancy, childbirth, and postnatal period was 68%, 37.5%, and 72.6% respectively. The occupational status of women being students (AOR = 3.198, 95% CI: 1.250, 8.184) was an independent predictor of cultural malpractice during pregnancy. Age less than 30 (AOR = 2.075, 95% CI: 1.282, 3.357), rural residence (AOR = 1.892, 95% CI: 1.014, 3.532), occupation housewife (AOR = 2.841, 95% CI: 1.228, 6.575), merchant (AOR = 3.077, 95% CI: 1.134, 8.346) and number of pregnancy less than five (AOR = 2.707, 95% CI: 1.594, 4.597) were independent predictors of cultural malpractice during childbirth. Occupation housewives (AOR = 0.408, 95% CI: 0.226, 0.736) and a number of pregnancies less than five (AOR = 1.832, 95% CI: 1.035, 3.244) were independent predictors of cultural malpractice during the postnatal period.

*Conclusion:* and recommendation: cultural malpractice among reproductive-age women was high. Therefore, concerned bodies should strengthen the promotion of skilled birth attendance and community sensitization on the cultural malpractice consequences.

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#### 1. Introduction

Maternal health refers to the health of women during pregnancy, childbirth, and the postnatal period. Each stage should be a positive experience, ensuring women and their babies reach their full potential for health and well-being. However, the qualities of care provided during these phases are determinant for maternal morbidity and mortality [1]. In 2017, approximately 810 women died from preventable causes related to pregnancy and childbirth. The low and middle-income countries share about 94% and sub-Saharan Africa only contributes two-thirds of the world's maternal mortality ratio [2].

Cultural practices during pregnancy, childbirth, and the postnatal period are common practices in developing countries. This cultural effect may be beneficial, neutral, or harmful. They deter the healthcare-seeking behavior and receiving of the care by the women during each phase. Due to a lack of clear information, many cultural practices have a serious effect on the health of pregnant women, commonly in developing countries like Ethiopia [3].

Many conventional malpractices exist worldwide during pregnancy, labor and delivery, and the postnatal period. Guatemalan women believe that consuming a beverage made by cooking a purple onion in beer may speed up their delivery [4]. Midwives in Niger help women labor by giving them herbal drinks and sprinkling herbs on their abdomens. Because of the risk of extended labor, energy and protein-rich diets were not permitted during pregnancy. Vitamin and mineral sources were also restricted during pregnancy, owing to concerns about offensive discharges following birth and the incidence of skin problems [5,6]. These facts are refuted by this proof. Pregnancy is a critical time in a woman's life when she requires high-quality nutrients to support the developing fetus and ensure a healthy pregnancy [7,8].

In Ethiopia, the cultural practice during pregnancy, childbirth, and postnatal period is commonly practiced especially in rural areas. The commonest practices are avoiding foodstuffs like milk, honey, meat due to fear of large baby which causes difficulty of labor. Massaging the abdomen of pregnant women to relieve back pain and correct the position of the fetus is practiced mostly by untrained traditional birth attendants. Additionally taking herbal medicines and doing extraneous activities due to the belief that it makes labor easier [9]. After the women give birth they will practice Uveloctomy, tonsillectomy, and milk tooth extraction to the newborn [10]. According to one multicenter study, about 89% of tonsillectomies and 27% of Uvulectomies were performed during the first month of infants' age [11]. Those practices will enhance the chance of infection, the transmission of human immune deficiency virus during breastfeeding and decrease their survival.

Despite the above existing evidence in Ethiopia many efforts have been made to avoid these practices. Some of the practices are legally prohibited whereas some are tried to reach the population through media, community-based education, increasing coverage of antenatal care, strengthening health extension workers, and promotion of skilled birth attendants. However, the prevalence of cultural malpractice during pregnancy, childbirth, and the postnatal period is still high. According to the 2019 Ethiopian demographic health survey report, 50% were delivered by a skilled provider and 48% were delivered in a health facility in Ethiopia [12]. So the lower-skilled care received determines the cultural malpractice and care received by the women. In spite of this there is limited evidence in Loma woreda southwest Ethiopia. Therefore this study intends to determine the magnitude of cultural malpractice performed during pregnancy, childbirth, and immediate postnatal period and associated factors among reproductive-age women.

## 2. Methods and materials

#### 2.1. Study setting, period and design

A community-based cross-sectional study was conducted in Loma district southwest Ethiopia from February to June 2018. Loma district is found 471 km from Addis Ababa which is the center of Ethiopia. This district has a total of 40 kebeles which constitutes 4 urban and 36 rural kebeles. Its population projection from the 2007 census is 140,462 of which 71,636 are females and 57,174 are males for the year 2017/2018. In the district, the reproductive age of women is about 32,728 (23.3%). There are 1 primary hospital, 4 health centers, 40 health posts, 2 NGOs, and 8 private clinics and 3 pharmacies are found in the district.

# 2.2. Population, sample size determination and sampling procedure

The study populations are those women who gave birth in the last two years. The required sample size for the study was determined using the following single population proportion formula.

$$n = \frac{Z_{\alpha/2}^2 P(1-P)}{d^2}$$

The proportion of anything applied on the umbilical cord during the postpartum period (64.4%) was taken from other similar studies conducted in Kersa Malima District, southwest Shoa Zone [13]. Considering 95% confidence interval, 5% of margin of error, and 10% nonresponse rate, the final sample size becomes 352.

Ten rural kebeles and two urban kebeles were chosen. Then sample size was proportionally allocated to each chosen kebeles. Each kebeles has its own family folder in the hard copy and the sample frame was prepared from the family folder. The selection of study participants was made using a systematic sampling technique. Finally, every kth mother from each Kebeles was identified while the first household was selected using a lottery method.

## 2.3. Data collection instruments and procedures

Pretested structured interviewer-administered questionnaire was developed from different reviews of literature. It was prepared in English and translated to Amharic and Dawrogna and back-translated to English. Five data collectors and two supervisors who are health professionals were recruited. Then they were given three days of training on the objective of the study and on the data collection tool before the actual data collection started.

# 2.4. Data management and analysis

Collected data were cleaned, coded, and entered to Epi Data 3.1 and exported to SPSS version 20 for analysis. Descriptive statistics were performed for some variables those considered pertinent. Descriptive statistics were used to describe the study population in relation to relevant variables and presented using narration and tables. Multicollinearity among independent variables and Hosmer and Lemeshow test for fitness of the model was checked. Bivariate logistic regression was performed for each independent variable with the outcome of interest to identify candidate variables at a p-value less than 0.25 for the final model. Then multivariable logistic regression was employed to identify factors associated with outcome variables. Significance was declared at a 95% confidence interval and p-value less than 0.05 with an adjusted odds ratio.

# 2.5. Operational definitions

# 2.5.1. Cultural practices

Refers to the sum of norms, taboos and values related to pregnancy, labor and postpartum period regardless of their benefits or harm.

## 2.5.2. Cultural malpractice during pregnancy

If a woman practiced at least one or more of cultural activities and functions that includes food prohibition, consumption of craved food, abdominal massage, herbal medicine use and forced to work extraneous activity from conception until the baby is born.

## 2.5.3. Cultural malpractice during delivery

If a woman practiced at least one or more of cultural activities and functions that includes perform practices to facilitate labor and delivery, home delivery and perform practices to expel delayed placenta from the start of labor to a viable fetus and placenta are expelled from the uterus, into the pelvic or birth canal and through the vaginal orifice.

#### 2.5.4. Cultural malpractice during postnatal period

If a woman practiced at least one or more of cultural activities and functions that includes cutting the cord with unsterilized material, apply substance on umbilical cord, avoid colostrum, prelacteal feeding and postnatal food restriction from delivery to six weeks after giving birth.

#### 2.6. Ethics approval and consent to participate

The study was conducted after ethical review and clearance of the proposal by the Institutional Ethical Review Board (IRB) of Jimma University College of Public Health and Medical science postgraduate coordinating office (Ref. No. CPHMSPG/1143/2018) received. Permission letter was obtained from the Loma district health office and from each kebeles. This study was conducted in

# Table 1

Socio demographic characteristics of respondents in Loma District, Southwest Ethiopia 2018 (n = 387).

	-		
Socio-demographic variables	Variables	Frequency	Percentage
Age in years	15–19	10	2.6
	20–29	158	40.8
	30–39	192	49.6
	40-49	27	7.0
Residence	Urban	96	24.8
	Rural	291	75.2
Marital status	Single	10	2.6
	Married	370	95.6
	Divorced	7	1.8
Level of education	Illiterate	156	40.3
	Primary school	85	22.0
	Secondary school and above	146	37.7
Occupational status	House wife	249	64.3
	Merchants	43	11.1
	Student	29	7.5
	Employed	62	16.0

accordance with the Declaration of Helsinki. Also, all the fundamental ethical principles including the respondents' written informed consent, risks, benefits, and comfort of the respondents were followed according to the research ethical guidelines. Informed written consent was obtained from all mothers after explaining the objectives of the study in detail, and anonymity and confidentiality of the data were kept. Respondents have the right not to participate or withdraw from the study at any stage. There were no unique identifiers of study participants on the questionnaire and all the data collected were handled confidentially and were safely disposed.

# 3. Result

# 3.1. Socio-demographic characteristics of respondents

A total of 387 women participate in the study yielding a response rate of 100%. Nearly half of women, 191 (49.4%) were between 30 and 39 years old. About three-quarters of women, 291 (75.2%) were rural residents and 370 (95.6%) were married. One hundred fifty-six (40.3%) were illiterate and 249 (64.3%) women were housewives. Among those participants, 36 (9.3%), 18 (4.7%) and 14 (3.6%) women had a history of stillbirth, abortion, and neonatal mortality respectively (Table 1).

# 3.2. Magnitude and type of cultural malpractice during pregnancy, childbirth and postnatal period among reproductive age women

## 3.2.1. Cultural malpractice during last pregnancy

The magnitude of women involved in cultural malpractices during pregnancy was 263 (68.0%) with (CI: 63–73. Out of these, 159 (60.5%) were practiced food prohibition of certain food stuff like milk, meat, egg, and fruits. One hundred nineteen (45.2%) respondents were practice consumption of craved food in the period of craving and of which 112 (96.6%) were consumed herbal substances for fear of skin discoloration on the fetus.

## 3.2.2. Cultural malpractice during labor and delivery

Among the respondents, 145 (37.5%) with (CI: 32.5–42.5) women were involved in cultural malpractices during labor and delivery. Out of the total 387 respondents, 145 (37.5%) women give birth at home. About one-fourth 98 (25.3%) of participants reported that only the husband decides where to seek help during labor. Seventy-eight (52.8%) women involved in cultural malpractice to facilitate the labor of which 39 (50.0%) were practice abdominal massage, 30 (38.5%) were ingest herbs and 5 (6.4%) were practiced religious ceremonies. Retention of the placenta was managed by 20 (31.7%) women lifted upwards and 25 (39.7%) women drink herb remedies to expel the placenta.

# 3.2.3. Cultural malpractice during postnatal period

The magnitude of women involved in cultural malpractice during the postnatal period was 281 (72.6%) with (CI: 67.6–77.6). Among the total home deliveries, 76 (52.8%) were used non-boiled new razor blades to cut the umbilical cords. About 97 (66.9%) and 44 (30.3%) home deliveries used thread and "Zanza" (in Dawurogna) (dry internal part of Enset) in order to tie the umbilical cord. The majority of women, 197 (70.1%) apply substances like butter, Vaseline, cow dung, ashes, and yolk on the umbilical stump within three days after delivery to prevent drying and facilitate detachment. One hundred thirty-three (47.3%) mothers were avoided colostrum and 60 (21.3%) initiates' immediate bathing of the newborn.

#### Table 2

Independent predictors of cultural malpractice during pregnancy period among reproductive age women in Loma District, Southwest Ethiopia 2018 (n = 387).

Variables	Perform cultural malpractice during pregnancy		COR (95% CI)	AOR (95% CI)
	Yes, N (%)	No, N (%)		
Age in years				
Less than 30 years	107 (39.8%)	61 (51.7%)	1.554 (1.011-2.389)*	0.965 (0.581-1.603)
Above 30 years	162 (60.2%)	57 (48.3%)	1	1
Residence				
Rural	214 (79.6%)	77 (65.3%)	1.760 (1.091-2.840)*	0.728 (0.416-1.273)
Urban	55 (20.4%)	41 (34.7%)	1	1
Occupation				
House wife	192 (71.4%)	57 (48.3%)	0.523 (0.292-0.935)*	0.811 (0.375-1.753)
Merchants	33 (12.3%)	14 (11.9)	0.628 (0.281-1.405)	0.625 (0.271-1.443)
Student	14 (5.2%)	15 (12.7%)	3.289 (1.290-8.387)*	3.198 (1.250-8.184)**
Employed	32 (27.1%)	30 (11.2%)	1	1
No of pregnancies				
Less than 5	194 (72.1%)	99 (83.9%)	2.036 (1.176-3.525)*	1.137 (0.589–2.197
5 and more	75 (27.9%)	19 (16.1%)	1	

#### 3.3. Factors associated with cultural malpractice during pregnancy, delivery and postnatal period

#### 3.3.1. Factors associated with cultural malpractice during pregnancy

In bivariate logistic regression age, residence, occupation, and a number of pregnancies were found candidate variables for multivariable logistic regression. Finally, only one variable which is a student in occupation explained the regression model. Women who were students by occupation practice cultural malpractice during pregnancy more than three times (AOR = 3.198, 95% CI: 1.25-8.18) higher compared to employed women. (Table 2).

# 3.3.2. Factors associated with cultural malpractice during labor and deliveries

In bivariate logistic regression age, residence, educational level, occupation, and number of pregnancies were found candidate variables for multivariable logistic regression. Finally, four variables explained the regression model. Age, residence, occupation, and number of pregnancies were independent predictors of cultural malpractice during labor and delivery. Women those below the age of 30 were more than two times (AOR = 2.075, 95% CI: 1.282–3.357) more likely to practice cultural malpractice during labor and delivery compared to those above 30 years old. Rural resident women were nearly two times (AOR = 1.892, 95% CI: 1.014–3.532) to practice cultural malpractice during labor and delivery compared to urban resident women. Housewife women were nearly three times (AOR = 2.841, 95% CI: 1.228–6.575) and merchant women were also three times (AOR = 3.077, 95% CI: 1.134–8.346) more likely to practice cultural malpractice during labor and delivery compared to those employed. Women those have history of number of pregnancy less than five were more than two and half times (AOR = 2.707, 95% CI: 1.594–4.597) more likely to practice cultural malpractice during labor and belivery compared to those have above five (Table 3).

## 3.3.3. Factors associated with cultural malpractice during postnatal period

In bivariate logistic regression age, residence, level of education, occupational status, and a number of pregnancies were found candidate variables for the multivariable logistic regression model. Finally, two variables explained the regression model. Occupational status and number of pregnancies were found independent predictors of cultural malpractice during the postnatal period. Women who were housewife by occupation were 60% (AOR = 0.408, 95% CI: 0.226–0.736) less likely to practice cultural malpractice during postnatal period compared to those employed. Women who have history of pregnancy number less than five were nearly two times (AOR = 1.832, 95% CI: 1.035–3.244) to practice cultural malpractice during postnatal period compared to those who have number of pregnancy above five (Table 4).

# 4. Discussion

The result of this study revealed that the overall prevalence of cultural malpractices during pregnancy was 68%. This finding is higher as compared to the study conducted in Meshenti town, Ethiopia [14] and in Debretabor Northwest Ethiopia [15] with the prevalence of 51% and 25.6% respectively. This variation of prevalence might be due to the socio-demographic and socio-cultural characteristics of the populations. The other possible justification is a difference in the study setting, study was conducted in Debretabor, Ethiopia is among women attending the maternal and child health unit (MCH) whereas study conducted in Meshenti is urban setting.

In this study, the prevalence of food prohibition/nutritional taboo was 159 (60.5%). This result is supported by studies conducted

# Table 3

Independent predictors of cultural malpractice during labor and delivery among reproductive age women in Loma District, Southwest Ethiopia 2018 (n = 387).

Variables	Perform cultural malpractice during labor and delivery		COR (95% CI)	AOR (95% CI)
	Yes, N (%)	No, N (%)		
Age in years				
Less than 30 years	40 (27.6%)	128 (52.9%)	2.947 (1.892–4.591)*	2.075 (1.282-3.357)**
Above 30 years	105 (72.4%)	114 (47.1%)	1	1
Residence				
Rural	124 (85.5%)	16769.0%	2.652 (1.550-4.536)*	1.892 (1.014-3.532)**
Urban	21 (14.5.5%)	75 (31.0%)	1	1
Level of education				
Illiterate	79 (54.5%)	77 (31.8%)	3.808 (2.295-6.312)*	1.353 (0.620-2.950)
Primary school	35 (24.1%)	50 (20.7%)	2.597 (1.445-4.668)*	1.361 (0.639-2.897)
Secondary school & above	31 (21.4%)	115 (47.5%)	1	1
Occupation				
House wife	114 (78.6%)	135 (55.8%)	5.700 (2.604-12.475)*	2.841 (1.228-6.575)**
Merchants	15 (10.3%)	32 (13.2%)	3.164 (1.208-8.289)*	3.077 (1.134-8.346)**
Student	8 (5.5%)	21 (8.7%)	2.571 (0.854-7.741)	2.820 (0.912-8.718)
Employed	8 (5.5%)	54 (22.3%)	1	1
No of Pregnancies				
Less than 5	86 (59.3%)	207 (85.5%)	4.057 (2.491-6.609)*	2.707 (1.594-4.597)**
5 and more	59 (40.7%)	35 (14.5%)	1	1

#### Table 4

Independent predictors of cultural malpractice during postnatal period among reproductive age women in Loma District, Southwest Ethiopia 2018 (n = 387).

Variables	Perform cultural malpractice during post natal period		COR (95% CI)	AOR (95% CI)
	Yes, N (%)	No, N (%)		
Age in years				
Less than 30 years	95 (38.8%)	73 (51.4%)	1.670 (1.1002.536)*	1.080 (0.666–1.750)
Above 30 years	150 (61.2%)	69 (48.6%)	1	1
Residence				
Rural	195 (79.6%)	96 (67.6%)	0.535 (0.335-0.855)	1.083 (0.499-2.350)
Urban	50 (20.4)	46 (32.4%)	1	1
Level of education				
Illiterate	115 (46.9%)	41 (28.9%)	.366 (0.226-0.593)	0.687 (0.335-1.176)
Primary school	56 (22.9%)	29 (20.4%)	.532 (0.306-0.926)	0.835 (0.415-1.679)
Secondary school & above	74 (30.2%)	72 (50.7%)	1	1
Occupation				
House wife	176 (71.8%)	73 (51.4%)	0.342(0.193-0.604)	0.408(0.226-0.736)**
Merchants	27 (11.0%)	20 (14.1%)	0.610 (0.284–1.310)	0.628 (0.292-1.352)
Student	14 (5.7%)	15 (10.6%)	0.882 (0.365-2.135)	0.865 (0.37-2.095)
Employed	28 (11.4%)	34 (23.9)	1	1
Pregnancies				
Less than 5	172 (70.2%)	121 (85.2%)	2.445 (1.428-4.189)	1.832 (1.035–3.244)**
5 and more	73 (29.8%)	21 (14.8)	1	1

in Limmu Genet Town, Southwest Ethiopia [16], Illu Aba Bor Zone, Southwest Ethiopia [17], and Uttarakhand, India [18]. However, this finding is larger than the study conducted in Afar Ethiopia [19] and the Amhara region, Ethiopia [20]. The possible justification for this difference might be since the study was conducted in Afar was facility-based whereas the study in the Amhara region was conducted in urban areas.

Among the total respondents, 145 (37.5%) of women were involved in cultural malpractice during labor and delivery. This finding was similar to the study conducted in Meshanti Town Ethiopia [14] with a prevalence of 37.9%. However, study conducted in Meshanti was at urban setting which might under estimate the prevalence. Women who gave birth at home were 145 (37.5%). This result is supported by studies conducted in Limmu Genet Town, Southwest Ethiopia [16], Meshanti Town Ethiopia [14], and the Amhara region, Ethiopia [20]. This similarity might be explained that all studies are community-based. Among all women involved in cultural malpractice during labor and delivery, seventy-eight of them engaged in labor facilitating malpractice. Of those women, 39 (50.0%) were practice abdominal massage. This result is supported by the findings of a study conducted in Limmu Genet Town, Southwest Ethiopia [16], Afar [19], and the Amhara region, Ethiopia [20]. Whereas 30 (38.5%) of women used to ingest herbs and 5 (6.4%) women were practiced religious ceremonies having a belief in facilitating labor. This result is supported by a study conducted in Meshenti town, Ethiopia [14].

This study revealed that among the total study participants, 281 (72.6%) of women were involved in cultural malpractice during the postnatal period. This result is in line with a study conducted in Meshanti town [14], Ethiopia, and Konya City of Turkey [21] with the prevalence of 76.1% and 84.5% respectively. But, study conducted in Meshanti town at urban setting. In this study majority of women, 197 (70.1%) apply substances like butter, Vaseline, cow dung, ashes, and yolk on the umbilical stump to prevent drying and facilitate detachment. This is in line with studies conducted in meshenti town, Ethiopia [14], and Uttarakhand, India [18]. The possible justification for this similarity might be setting similarity with study in meshenti town and the study conducted in India is an exploratory study involving traditional birth attendants which focuses on cultural malpractice. Among the total home deliveries, 76 (52.8%) were used nonboiled blades to cut the umbilical cord. It is supported by the study conducted in meshenti town, Ethiopia [14] and Uttarakhand, India [18]. In addition to this 133 (47.3%), women have avoided colostrum and 60 (21.3%) initiates' immediate bathing of the newborn. This result is supported by the study conducted in Limmu Genet Town, Southwest Ethiopia [16], Afar, Ethiopia [19], and meshenti town, Ethiopia [14]. This might be due to socio-cultural similarity.

Women who were students in occupations were more likely to engage in cultural malpractice during pregnancy. This could be explained due to social norms and values which probably hinder them from seeking care from health facilities. The other possible reason might be mostly students are in the adolescent age group and the pregnancy might be unplanned. Therefore they might fear stigma and discrimination as well as having the belief of adolescent and youth sexual and reproductive health services are not friendly and adolescent responsive.

Age less than 30, rural residence, occupation being housewife and merchant, and a number of pregnancies less than five were factors associated with cultural malpractice during labor and delivery.

Those women under the age of 30 were more likely to practice cultural malpractice compared to their counterparts. This age group constitutes adolescents and youth. Therefore, there might be the influence of immaturity, lack of information, failure to compare pros and cons of the practice and they may follow the practice of their ancestors.

Rural resident women were more likely to practice cultural malpractice compared to urban residents during labor and delivery. This finding is supported by the study conducted in southern Ethiopia [22]. The possible justification might be women living in rural areas might not get access to information, have scarce media accessibility, and are dependent on cultural beliefs.

In this study women who were housewives and merchants in occupation were more likely to engage in cultural malpractice during labor and delivery compared to employed women. This might be explained that employed women have a higher probability of sharing knowledge, experience among their colleagues, and would get high access to information and media. Therefore housewives might face in contrast to employed women.

Para less than five was another factor associated with cultural malpractice during labor and pregnancy compared to their counterpart. Since this study includes rural areas and adolescent marriage is common in rural parts of Ethiopia, they might be culturedependent.

Housewives in occupation and Para less than five were factors associated with cultural malpractice during the postnatal period. Housewife women were more likely to engage in cultural malpractice compared to employed women during the postnatal period. The possible justification might be poor access to information and being culture-dependent. Women less than five Para were more likely to practice cultural malpractice compared to their counterparts during the postnatal period.

Therefore ending the cultural malpractice, which is the determinant for maternal mortality and neonatal death, will help to assure the sustainable development goal three; target 3.1 and 3.2. Target 3.1 aimed to reduce the global maternal mortality ratio to less than 70 per 100,000 live births and target 3.2 aimed to end preventable deaths of newborns by 2030.

A limitation of this study is that healthcare-related variables have been missed. So, further exploratory study a type of ethnographic study should be considered to further explore why women engage in cultural malpractice. Another limitation of this study is social desirability bias.

# 5. Conclusion

The prevalence of cultural malpractice during pregnancy, labor and delivery, and postnatal period was high in this study. Age less than 30, rural residence, occupation being student, housewife and merchant and Para less than five were factors associated with cultural malpractice. Therefore, it will be necessary to strengthen the health extension program and the women's development army. Mothers who are under 30 years old, rural residents, students, housewife, merchant, and Para less than five should be followed beginning during pregnancy. One to five women network discussions should include a discussion of cultural malpractice prevention.

# Authors' contributions

All authors contribute equally.

# Funding's

The study was funded by Jimma University.

# Consent for publication

NA.

## Data availability

The corresponding author can be contacted for any required data as per the guideline of the journal up on request.

# Declaration of competing interest

The authors declare that they have no competing interests.

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# Abbreviations

ANC	Antenatal care
AOR	Adjusted odds ratio
COR	Crude odds ratio
CI	Confidence interval
EDHS	Ethiopian demographic health survey

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