ASRAT WOLDEYES HEALTH SCIENCE CAMPUS

SCHOOL OF NURSING AND MIDWIFERY

DEPARTMENT OF NURSING

PREFERENCE OF CESAEREAN DELIVERY AND ITS ASSOCIATED FACTORS AMONG PREGNANT WOMEN ATTENDING ANTE NATAL CARE AT PUBLIC HEALTH FACILITIES OF DEBREBRHAN TOWN, ETHIOPIA, 2023.

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A THESIS SUBMITTED TO DEBRE BERHAN UNIVERSITY, ASRAT WOLDEYES HEALTH SCIENCE CAMPUS, SCHOOL OF NURSING AND MIDWIFERY, DEPARTMENT OF NURSING; IN THE PARTIAL FULFILLMENT FOR REQUIREMENTS OF MASTERS SCIENCE DEGREE IN MATERNITY AND REPRODUCTIVE HEALTH NURSING

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ABSTRACT

Introduction: Caesarean section is a surgical procedure used to prevent or treat life-threatening maternal or fetal complications. Women's delivery preferences have become a global issue of interest to many researchers and clinicians, especially given the ever-increasing rate of caesarean sections. There is limited data on the preference of caesarean delivery for Ethiopian women particularly in the study area.

Objectives: To assess preference of caesarean delivery and its associated factors among pregnant women attending antenatal care at public health facilities of Debre Berhan town, Ethiopia 2023.

Methods: An institution based cross-sectional study design was done from May 5-20, 2023 among 512 participants and a multi stage sampling technique was used. The data was collected by using an interviewer administered semi structured questionnaires. The data was entered by Epi Data version 4.6, then transferred to SPSS version 25 for analysis. With logistic regression those variables with a p-value <0.25 in the bi variable analysis was candidate to multivariate logistic regression and variables with a p-value <0.05 was considered statistically significant.

Result: The preference of cesarean section was, 133 (26%) with CI (22.3%, 29.9%). Women with previous satisfaction on intra partum care (AOR; 6.3 CI=(3.5-11), not knowledgeable to caesarean delivery(AOR;2.9; 95%CI=1.6-5.3),history previous spontaneous abortion(AOR;3.1; 95%CI=(1.5-6.3) residence(AOR;1.9 95%CI=(1.0-3.5) and current pregnancy related problem(AOR;4.9 95% CI=1.9-10) were significantly associated with Preference of caesarean delivery.

Conclusion and recommendation: In this study the preference of cesarean delivery was high as compared to world health organization recommendation. Previous Satisfaction on intra partum care, current pregnancy related obstetric problem, Knowledge of the Respondents towards caesarean delivery, Previous spontaneous abortion, Residence were significantly associated with Preference of caesarean delivery. Designing strategies to enhance maternal satisfaction by strengthening adherence to intra partum care.

Key words: Preference of cesarean delivery, cesarean delivery.

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ACRONYMS AND /ABBREVIATIONS

ANC: Antenatal Care

AOR - Adjusted odds ratio

CD: Caesarean Delivery

CDMR: Caesarean Delivery on maternal request

CI - confidence interval

COR - crude odds ratio

CS: Cesarean Section

SPSS: Statistical Package for the Social Science

SVD: Spontaneous Vaginal Delivery

VBAC: Vaginal Birth after Caesarean Section

WHO: World Health Organization

1. Introduction

1.1 Background

Maternity delivery is one of the most important health care services in all countries (1). Preference of caesarean delivery is defined as choosing caesarean section as a mode of delivery (2).

Women's preferences for mode of delivery have emerged as a global subject of interest to many researchers and clinicians especially with the steady increase in the rate of cesarean section (CS), Even though the World Health Organization (WHO) advises a maximum of 10-15% acceptable rate of caesarean sections (3). With some data showing caesarean section rates above 15% are not linked to further declines in maternal and neonatal mortality and morbidity (4).

The right to prefer mode of delivery is a crucial component of compassionate and respectful care in modern obstetrics as it fosters both maternal and neonatal well-being(5). Caesarean section is a surgical procedure used to prevent or treat life-threatening maternal or fetal complications (6). Pregnant women are normally involved in decision-making process concerning mode of delivery and many factors affect their decision. These processes are influenced by person's environment, values, personality, knowledge and insight which influence each other interactively(7)

Caesarean delivery at the mother's request (CDMR) is a branch of elective cesarean sections performed not according to medical indication, but at the mother's request (8).

C-section has become a prominent indicator of accessing progress in emergency obstetric care, and a method to avert complications during labor and delivery(9). Modern obstetric practice has seen increases in primary CS rates everywhere for medical, social, economic, and legal reasons (10). For instance, studies done Port Elizabeth has the highest CS rates (55.6%)(11), Latin America (40.5%), (12) in southern India region (32 %)(13), in south Africa the CS rate is (42.4%),(14), and in Ethiopia also the CS rate between 20.2 and (38.3%) of mothers were undergone caesarean section (15-17).

In Ethiopia, between 2000 and 2016, there was a slight increase in the national cesarean section rate from 0.7% in 2000 to 1.9% in 2016 (18). Based on various attributes, differences continued to exist. Compared to rural areas, which had a caesarean section rate of 0.9%, urban areas had a caesarean section rate of 10.6% in 2016 (18-20). Determining their preferences in mode of delivery will help reduce the maternal and prenatal morbidity and mortality (19).

Advancement of delivery care including caesarean delivery has greatly improved the outcomes of birth globally with significant reduction of maternal morbidity and mortality. However, the evidence to support this is limited in Africa especially Ethiopia and more particularly, in the study area. The study aims at examining the factors influencing women's preferred mode of delivery.

1.2. Statement of problem

Today, the preference of CS are a global concern due to their steady rise, lack of consensus on the appropriate interest rate and the additional short- and long-term risks and costs involved (12).

The consequences of rising caesarean section rates cannot be overlooked (8). Several studies have postulated that there is no benefit associated with higher rates(13, 21), but that they may lead to increases in maternal morbidity and mortality(22).

But interestingly, maternal preference for caesarean section in the absence of medical indication is increasingly (23-26)

The rate of CS without medical indication is increasing, but the risk of surgical complications is not fully understood (27). CS is associated with an increased risk of bowel obstruction, bowel obstruction surgery, incisional hernia, incisional hernia surgery, and abdominal pain (27).

Evidence from around the world indicates that the extent of cesarean sections preference varied across countries (15-17). Preference of caesarean deliveries done in Norwegian(5%) (28),in Northeast of Iran (Neyshabur) (84%) (29),in America (14%) (30),in, A study conducted in n the Niger Delta, Nigeria Of the respondents, 12.5% would prefer a caesarean section(31), in Ghana (14%) (32) and in Ethiopia also preference of the C/S is 24.6% & 28.9% (23, 25).

There are some studies have been conducted on delivery mode preference in Ethiopia and associated factors (23, 25). However, those studies were not considered the effect of some variables, like; knowledge about the mode of delivery, attitudes towards the mode of delivery, and previous satisfactions on intra partum care.

In addition, there is limited data on the preference of caesarean delivery for Ethiopian women particularly no in the study area. Therefore, this study aimed to determine the prevalence of the current preference for CS and associated factor in the public health facilities of Debre Berhan, Amhara, Ethiopia.

Determining the preference of cesarean section is an important issue and has its own contributions to improve maternal and new born baby's health and also to the overall health delivery system of the country.

1.3. Significance of study

The study will be recommend a possible strategy for health professionals, zonal health departments, and regional and federal health ministries. Conducting this study would also give us the opportunity to examine the reasons behind women's preferences and the factors that influence their decision-making, thereby contributing to a broader discourse on the subject. For the health care provider and health facilities, to identify factors/reason for preference of CD and to design strategies. Also, the finding of the study would benefit the women to gave birth through their preferred mode of delivery after providing information. The North Shoa, the zonal health department and policy makers can use the conclusions of the studies to plan and evaluate various measures aimed at reducing maternal and neonatal morbidity and mortality that are increasing related to the mode of delivery. The study results may be valuable for pregnant women to improve knowledge towards CD and slightly prefer the mode of delivery. Furthermore, the whole community will benefit from the study's findings by having good information about mode of caesarean delivery. So, the findings of this study will aware policy makers and concerned bodies on women’s preferences to suggest and understand problems regarding mode delivery in order to amend programs or take proper mitigation on intervention strategy. Finally, this report will be used as significant literature for the next researchers who desire to do related research.

2. Literature Review

2.1. Over view of the literature

The number of CS performed without medical justification has steadily increased in most middle- and high-income countries over the past few decades, and maternal desire is one of the commonly cited non-medical factors contributing to this trend(33).

2.2. Magnitude of Preference of caesarean deliveries

Preference of caesarean deliveries done in Norwegian(5%) (28),in Northeast of Iran (Neyshabur) (84%) (29),in America (14%) (30),in, A study conducted in n the Niger Delta, Of the respondents, 12.5% would prefer a caesarean section(31), in Ghana (14%) (32) and in Ethiopia also preference of the C/S is 24.6% & 28.9% (23, 25).

According to study conducted in different part of Ethiopia found that 75.4% of respondents answered that they preferred a vaginal delivery, while 24.6% had prefers cesarean section (10). On the other preferred delivery style for C/S and spontaneous vaginal delivery (SVD) were 115 (28.9%) and 283 (71.1%), respectively (23, 25).

2.3. **Factors influencing preference of cesarean delivery**

2.3.1. Socio demographic characteristics

A study conducted in Cerrahpasa Medical Faculty of Istanbul University and six European countries, as maternal and parental educational status increases awareness of mothers about their health and increase the preference of caesarean delivery(21). In Taiwan, Israel women of advanced age, increasing maternal level of education this concern has led her to prefer CD as a safer way of giving birth for herself and her babies (34-36), and also a study done in Bangalore, place of residence, occupational status affects preference of CD (37).

Another study conducted in Iran showed that the father's high school education, had a significant effect on preferring C/S as a method of delivery by pregnant women (29, 38, 39). The study done in Nigeria showed that there was a significant relationship between age, marital status and level of education with preference for CS(36).

According to a study done in Ghana marital status, and urban settlement is the most common factor for preference for CS(32), and both the women with formal education as well as those without formal educations had relatively strong dislike for preference of CS (40), and in Ismailia, Mina District of Egypt ,Increased maternal age , educational status, and were among the factors associated with CS preference(25, 41). According to studies in Ethiopia, socio demographic characteristics that influences preference of delivery includes such as maternal age, maternal marital status, maternal educational, maternal occupation, Husband's educational status, and maternal residency, (23, 25).

2.3.2. Obstetric factors

A study done in Belgium For multiparous women, a negative birth experience and a previous CS were also associated with a preference for CS(26). In Bangalore, India study,mothers who had previous vaginal delivery, but preferred CD as their mode of delivery and all of them stated that they were afraid of labour pains and had not received any form of pain relief during their previous VD mode and as safer for the baby and also in El-Mahalla El-Kobra city Fear of pain, episiotomy and lacerations were factors that associated with preference of cesarean delivery(42, 43) (44). In South west Iran the preference for cesarean section affected by number of live births (39).

Another study conducted in America states that pregnant mothers who had a close friend or family member who has delivered by CS more prefers CD (30).

In Turkey, found that after vaginal delivery, sixteen percent of all women reported that they would prefer a cesarean delivery for their next pregnancy (45), the primary reason given by respondents for preferring cesarean section was fear of vaginal birth, followed by the desire to avoid pain and to reduce the risk to the baby (46). Apprehension of labour pains was a major factor for preferring CD over VD in many studies(21, 47). A Current Pregnancy that a higher number of women choose CD after an infertility treatment (21, 48).

According to Ghana study influencing Significant factors for preference of CS were previous childbirth, previous caesarean delivery(32).

The study conducted in Ethiopia revealed that planned pregnancy, pregnant for the first time, and those who had visited antenatal care repeatedly were among the variables associated with maternal

preference of caesarean section(25), previous mode of delivery(23), having previous pregnancy complications, and current pregnancy problems have significantly associated to caesarean section mode of delivery(23), prenatal examination also significantly associated to caesarean section mode of delivery(25).

2.3.3. Knowledge and attitude

On the other a study done in United Arab Emirates knowledge and Preference towards Mode of delivery among pregnant women in the 78.4% of pregnant women lacked sufficient knowledge on the mode of delivery and Pregnant women with a scarcity of adequate knowledge cannot prefer their mode of delivery (49, 50). Improving women's knowledge of the risks and benefits of different types of delivery can lead to positive maternal attitudes towards vaginal delivery (51).

A study conducted in Iran among pregnant mothers revealed that knowledge of the mother had a significantly associated with preference of CD (52).

According to a study conducted in Turkey women's attitudes and basic knowledge regarding vaginal delivery and cesarean section, as well as factors that make women prefer CD even when there is no medical indication (53). A study conducted in eastern Ethiopia, Debre Markos , Gamo Gofa Zone, maternal Previous satisfaction in mode of delivery and that is mothers who delivered through CS were more likely to be satisfied with delivery service than mothers who delivered through SVD(54, 55).

2.4. Summary of literature review

Generally, the literature cited above preference of cesarean delivery affected by socio demographic factors, obstetric factors, maternal knowledge, towards CD, maternal attitude towards CD, satisfaction on previous intra partum care.

The socio demographic factors includes Age, Residence, Marital status, Educational status, Partners Educational status, Occupation, partners educational status, Income. From obstetric factors, past and current obstetric factors, number of ANC contact, counciling about mode of delivery during ANC contact, satisfaction during intra partum care, knowledge towards

Caesarean delivery, attitude towards caesarean delivery also affect preference of cesarean delivery.

3. Conceptual frame work

The conceptual frame work for this study, were adapted from different previous studies conducted in different areas and it focused meanly on Preference of Cesarean delivery and its associated factors among pregnant women attending ANC (21, 26, 49-51, 55).

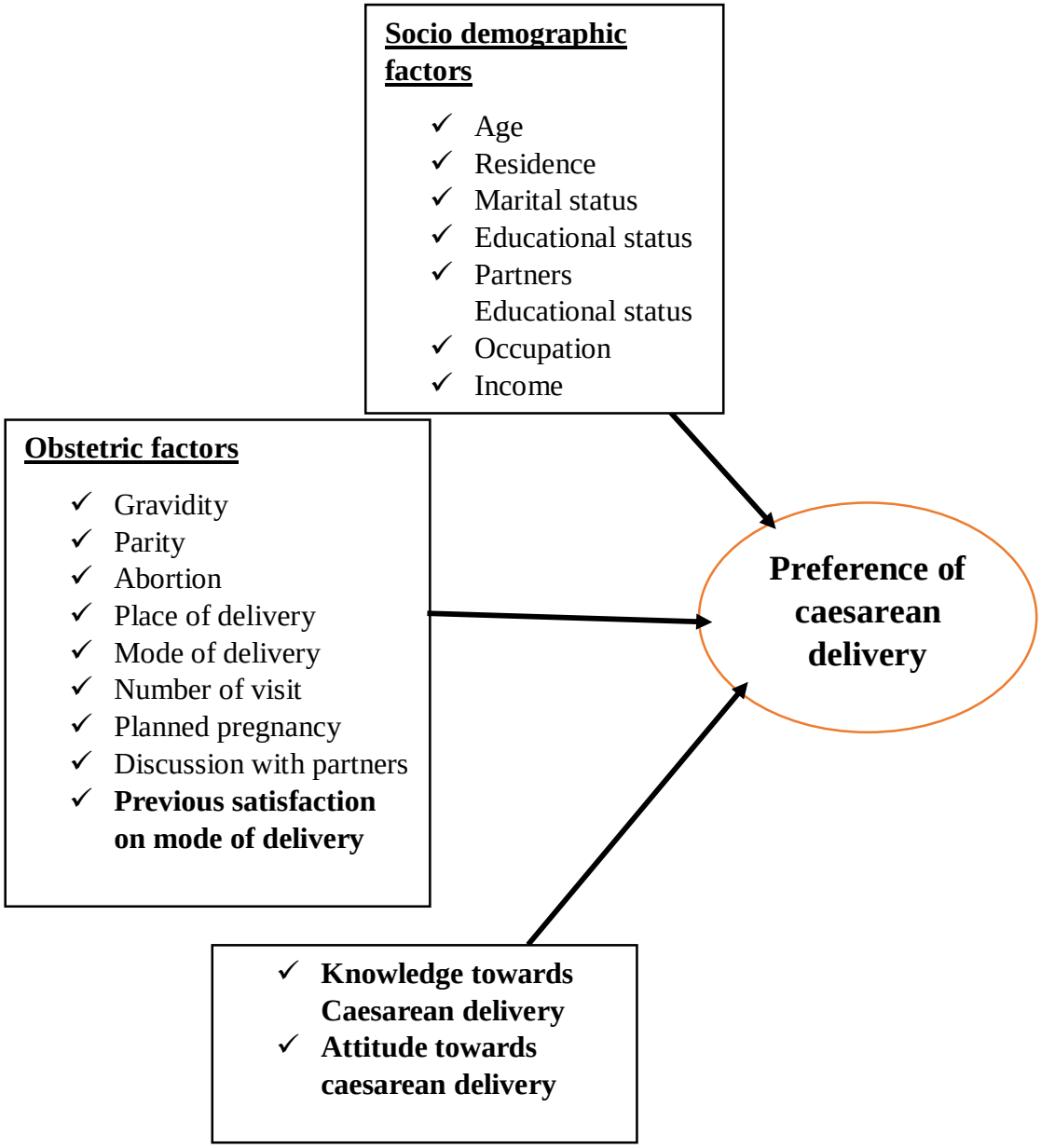

Figure1: A conceptual frame work for Preference of Cesarean delivery and its associated factors among pregnant women attending antenatal care at public health facilities of Debre Berhan town, Ethiopia, 2023.

4. Objectives

4.1 General objective

- To assess preference of caesarean delivery and its associated factors among pregnant women attending antenatal care at public health facilities of Debre Berhan Town, Ethiopia 2023.

4.2 Specific objective

- To assess preference of cesarean delivery among pregnant women attending antenatal care at public health facilities of Debre Berhan Town, Ethiopia 2023.
- To identify factors associated with preference of cesarean delivery among pregnant women attending antenatal care at public health facilities of Debre Berhan Town, Ethiopia 2023.

5. Methods and Materials

5.1 Study area

This study was conducted in selected public facilities in Debre Berhan town of North Shoa, Amhara, Ethiopia. Debre Berhan is located 130 km far from Addis Ababa, and 695 Km far from Bihar Dar capital city of Amhara Regional state. The total population of Debre Berhan town is 202,226 from the total population 106,388 are females and 6,815 are pregnant mothers. According to zonal health Department report, Debre Berhan, town, has ten public health facilities which are 2 government hospitals (of which are Debre Berhan comprehensive specialized hospital and Hakim

Gizaw hospital) and 8 are health centers, which are Debre Berhan health center, Tebase health center, Ayer tena health center, Chacha health center, keyt health centers, Goshebado health center

Debre, and Enkulal koso health center.

5.2 Study design and period

Institution based cross-sectional study design was conducted in Debre Berhan town public health facilities, from May 5-20, Ethiopia 2023.

5.3. Source of population

The source population all pregnant mothers who attended their ANC at public health institution in Debre Berhan city.

5.4. Study population

The study population all pregnant mothers who attended their ANC at selected health institutions in Debre Berhan city.

5.5. Inclusion and Exclusion Criteria's

Inclusion Criteria:

All pregnant women who had one or more than one delivery andwho attend the ANC during the data collection period.

Exclusion criteria:

Pregnant mothers, who had previous CS scars, uterine rupture.

5.6. Sample size determination

For the first objective (outcome), a single population proportion formula is used to calculate the sample size by considering the following statistical assumptions: P = proportion of Preference rate of CS among Pregnant mothers from other study, 28.9% Harar Regional State, Eastern Ethiopia(25). (Z α/2 = Z score of 95% CI, d= Margin of error (5%). $n = \frac{(Z_{\frac{\alpha}{2}})^2 \times p(1-p)}{(d)^2}$,

n = (1.96)2 *0.289*0.711/ (0.05)2 = 316* 1.5=474 Then after adding 10 % non-response rate, the sample size was 522.

For the second objective (predictors), the sample size was determined using double population proportion formula; by considering major predictor variables(Age, Gravidity, Birth place preference, Planned pregnancy)(25). The sample size was calculated by Using Epi info version 7.2.5.0 statistical software. one to one allocation ratio of exposed to non-exposed (1:1) was assumed and by using a 95% level of confidence, with a power of 80% to calculate it but the maximum sample size got from first objective (outcome) **522.**

Table 1:- sample size calculation to determine preference of Caesarean delivery and its associated factors among pregnant women attending antenatal care at public health facilities of Debre Berhan Town, Ethiopia 2023.

Variable	Proportion out come	AOR	Sample size	After adding 10%	After multiplying 1.5
Age	P1=0.2412 P2=0.0025	2.9	74	82	123
Gravidity	P1=0.128 P2=0.015	1.24	196	216	324
Birth place preference	P1=0.264 P2=0.023	2.2	80	88	132
Planned pregnancy	P1=0.206 P2=0.083	1.76	288	316.8	475

Where: P1: is proportion of exposed with the outcome;

P2: is proportion of non-exposed with the outcome;

Z α/2: is taking CI 95%

Zβ: 80% power and, r is the ratio of exposed to non-exposed 1:1.

The final sample size is 522.

5.7. Sampling technique and procedure

Multi-stage sampling technique was used to select representative sample. There are 10 public health facilities in Debre Berhan city; from these, 5 were selected using a simple random sampling method. The selected health facilities are Debere-Berhan Comprehensive Specialized Hospital (DBCSH), Debre Berhan health center, Tebase health center, Chacha health center and Keyt health center. The sample was allocated proportionally for each Health facilities and allocation done by using average monthly ANC follow up and which was 2100. Study participants was selected using a systematic random sampling technique. First, determine the sampling interval (K) value by dividing the total pregnant women attending antenatal care at in the study period by the total sample size, which gives $2.01 \approx 2$.

Probability allocation sampling technique was to select (nf x n)/N= (Sample final * no of total pregnant women attending antenatal care in each Health facilities/ number of total pregnant women attending antenatal care within two weeks.

Where N is equal to 1050.

- Debre Berhan comprehensive specialized hospital = 522x 400/ 1050 = 198
- Debre Berhan Health Center = 522 x 220/ 1050 = 110
- Tebase Health Center = 522 x 150/1050 = 74
- Cacha Health Center = 522 x 176/ 1050= 88
- Keyt Health Center =522 x 164/1050= 81

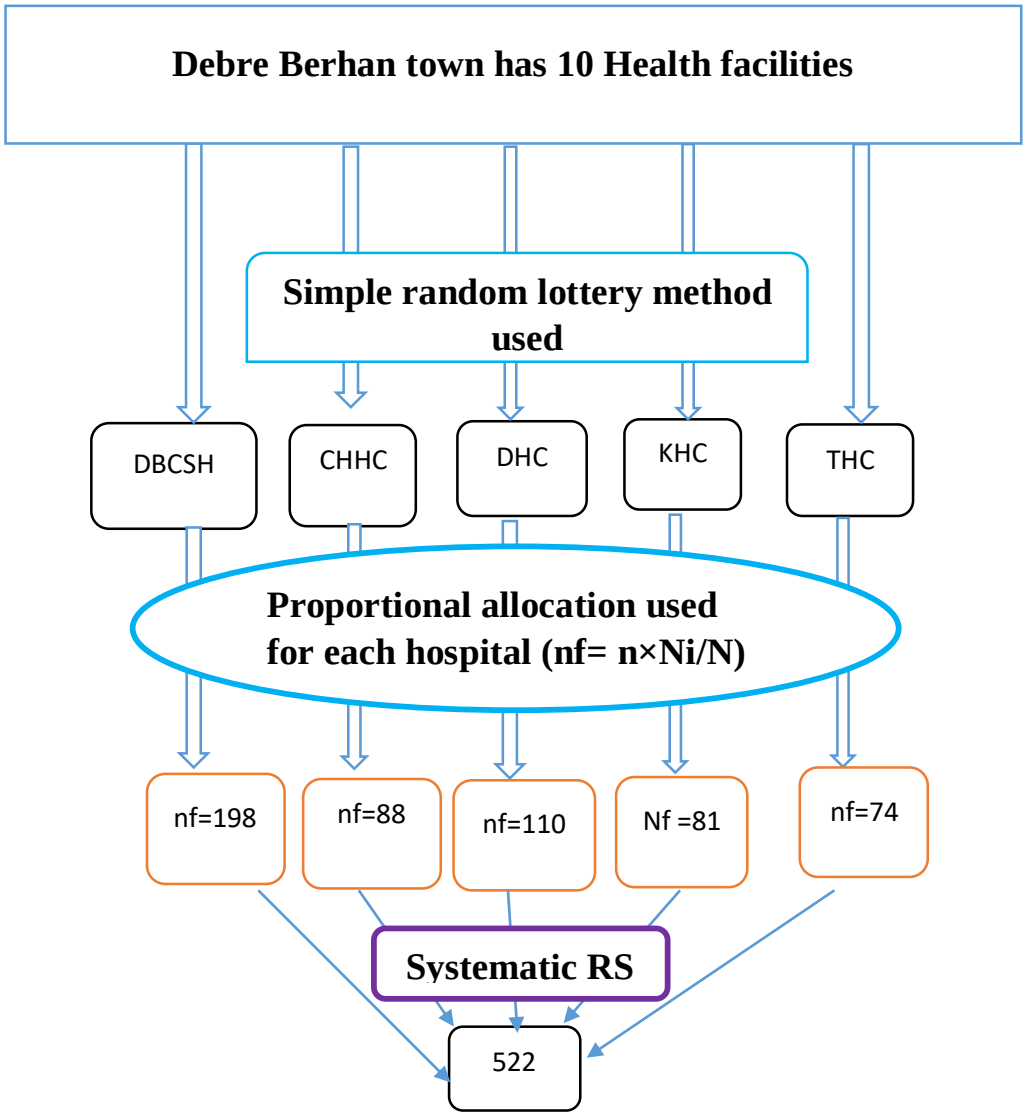

Figure 2: Schematic representation of sampling procedure **for determining the preference of C/S and its associated factors among pregnant mother attending ANC at public health facilities of Debre Birhan town, Ethiopia, 2023.**

5.8. Data collection methods

Data was collected using semi structured questionnaires adapted from review of relevant literatures (26, 49, 51, 56, 57). All questions were written in English language and translated in to Amharic the (local language) and then back to English by two different language experts to check for consistency and clarity. The questionnaire is divided into six sections (1-5) to obtain data on the socio-demographic characteristics of the respondents, obstetric factors, Knowledge towards Cesarean delivery, Attitude towards cesarean delivery, and Preference of caesarean delivery parts are contained.

5.9. Variables of the study

Dependent variable

- Preference of Cesarean delivery.

Independent variable

- **Socio demographic factors**
- Age, Residence, Marital status, Educational status, occupation, Income, partners educational status, Partners occupation.

Obstetric factors

Gravidity, parity, Number of live births, Abortion, Previous Place of delivery, Previous pregnancy related problem, current obstetric problem , Number of ANC contact, Discussion with partner, planned pregnancy, Counciling about mode of delivery, maternal satisfaction on previous intra partum care

Knowledge towards caesarean delivery

Attitude towards caesarean delivery

Maternal satisfaction on previous intra partum care

5.10. Operational definitions

Preference of cesarean delivery: implies patient choice of caesarean delivery without any fetal and maternal indication (58).

Maternal Knowledge:- Maternal knowledge towards cesarean delivery, the questions are adapted.1 point was given to each correct response and 0 points to incorrect and 'I don't know' answers. The overall maternal knowledge score was described as good (7–10), intermediate (4–6), and poor (0–3) (51).

Attitude towards cesarean delivery

The questionnaire for attitude assessment was served in Likert scale format with strongly agree (score 5), agree (score 4), neutral (score 3), disagree (score 2) and strongly disagree (score 1).

Attitude to CD was assessed with10 statements for caesarean delivery. A median attitude score was computed for each respondent for all the statements to find the overall attitude of women towards that mode of delivery. A median attitude score of 3 or less was considered as a negative attitude and a score of more than 3 was considered a positive attitude towards that particular mode of delivery (59).

Maternal satisfaction is the satisfaction of mothers during service delivery. The level of satisfaction was assessed on a 5-point Likert scale (1, very dissatisfied; 2, dissatisfied; 3, neutral; 4, satisfied; 5, very satisfied).1 point was given to satisfied and 0 points to unsatisfied. Those who were satisfied with ≥75% of the items were categorized as 'satisfied' (those who responded very satisfied, satisfied or neutral) and those who were satisfied with <75% of the items were categorized as 'unsatisfied' (those who responded dissatisfied or very dissatisfied (60).

5.11. Data Quality Assurance

Five diploma midwives were participated as data collectors and one BSC midwife was controls the overall activity of a data collection method as a supervisor. One days of training was given for data collectors on objective of the study. Pre-tested on similar set of respondents was done in Debre Sina primary hospital. It was done, to check for the reliability, validity, appropriateness of format, wording and time needed to fill the questionnaire.

5.12. Data processing and analysis

Following completion of the data collection, questionnaires was checked for completeness and consistency, and data was entered using Epi Data version 4.6, then transferred to SPSS version 25 for analysis. Binary and multiple logistic regression analyses was performed. Variables with a p-value of 0.25 in the bi variable analysis was considered for the multivariate analysis to control the effect of confounding variables. Variables with a p-value greater than 0.05 was fitted to the multi-variable model. The odds ratio along with a 95% confidence interval (CI) was computed to ascertain the strength of association between the explanatory and outcome variables.

The regression model fitness was checked by the Hosmer Lemshow goodness test =0.077 and Nagelkerke R square = 0.463, and. Multi collinearity assumption was checked by Variance Inflation Factor (VIF) and there is no multi collinearity.

5.13. Ethical considerations

Informed written consent was obtained from each study subjects after clear explanation about the purpose of the study. An official letter of cooperation was obtained for each selected Health facilities from Debere-Berhan University Asrat Woldeyes Health Science campus (protocol number IRB-135).We considered and agreed on the beneficence, no maleficence, and autonomy of the participants before beginning data collection by obtaining consent from all chief executive officers of the hospital and health center head. The purpose of the study was explained to the study participants; confidentiality was ensured. At all levels, officials were contacted and permission has been secured.

5.14. Dissemination of findings

The result of this study will be presented to Debre Berhan University, Asrat Woldeyes Health Science Campus**,** department of nursing and copy of the study publication will be distribute to the Amhara Regional Health Bureau, for, North shoa zone health department, for Debre Berhan city health department office districts, health centers and other concerned bodies through reports and publication on an appropriate journal.

6. Results

6.1. Socio-Demographic Characteristics of Respondents

The participant's level of response was 98% (512). The age of the mothers ranges from 18-45 years old with a mean age of 32.9 years. The marital status of the participants revealed that 431(84.4%) of them were married during the period of data collection. Moreover, 30.5% of respondents reported to have completed primary education,(Table2).

Table2.Socio demographic characteristics of pregnant women attending ANC in selected Public health facilities in Debre Berhan, Ethiopia, 2023.

Variables	Category	Frequency	Percentage (%)
Residence	Urban	337	65.8
	Rural	175	34.2
Age	18-25	113	22
	26-35	283	55.3
	36-45	116	22.7
Marital status	Single	37	7.2%
	Married	431	84.2%
	Divorced	31	6.1%
	Widowed	13	2.5%
Income	>2500	145	28.3%
	2500-4000	120	23.4%

	4001-10000	135	26.4%
	>10000	112	21.9%
Occupation	Employed	166	32.4%
	Un employed	346	67.6%
Educational status	No formal education	143	31.3%
	Primary education	131	28.7%
	Secondary education	67	14.7%
	College and above	11	25.4%
Partners Educational status	No formal education	143	22.7%
	Primary education	131	13.1%
	Secondary education	67	25.6%
	College and above	116	13.1%
Occupational status	Employed	174	34%
	Un employed	338	66%

6.2. Obstetric characteristics of the respondents

Among 512 respondents 94(18.4%) and 418(81.6%) were primi para and multi para respectively. The age of the respondents ranged from18 to 45 years old. From that 63 % were delivered at Health center in the previous childbirth. The majority of the respondents 352(70%) had planned pregnancy 15.8% of participants previously had pregnancy-related complications and 6.1% were currently had pregnancy-related complications. On the other hand, 46.8% of respondents reported to have a close friend or a family member who has delivered through cesarean section, and pregnant women's freedom of deciding about the mode of delivery have shown that 72.5% of respondents disclosed that they have a freedom to decide their mode of delivery. From the respondents (82.8%) have ever been planning about their mode of delivery. From the participants 129(25.2%) pregnant mothers were not satisfied with previous intra partum care (Table 3).

Table 3: Obstetric characteristics of pregnant women attending ANC in selected Public health facilities in Debre Berhan, Ethiopia, 2023

Variables	Category	Frequency	Percentage (%)
Previous history of spontaneous abortion	Yes	78	15.2
	No	434	48.8
Current number of ANC contact	FIRST	234	45.7
	SECOND	101	19.7
	THIRD	49	9.6
	4th VISIT	46	9.0
	> 4th visit	82	16.0
Parity	Primi para	94	18.4
	Multi	418	81.6
Previous pregnancy	Yes	66	12.3

related problem	No	449	87.7
Planed pregnancy	Yes	352	68.8
	No	160	31.3
Current pregnancy related problem	Yes	36	7
	NO	476	93
Discussion with Partners	Yes	306	59.8
	No	206	40.2
Partner's support to preference	Yes	294	57.4
	No	218	42.6
Previous intra partum care satisfaction	Yes	383	74.8
	No	129	25.2
Attitude towards CD	Positive attitude	369	70.9
	Negative attitude	149	29.1
Knowledge towards CD	Not knowledgeable	199	38.9
	Intermediate	109	21.3
	knowledgeable	204	39.8

6.3. Preference of caesarean Delivery

To determine women's preference for Cesarean delivery, 133 (26%) with CI (22.3%, 29.9%) of the respondents prefers caesarean delivery as a mode of delivery (Figure 2).

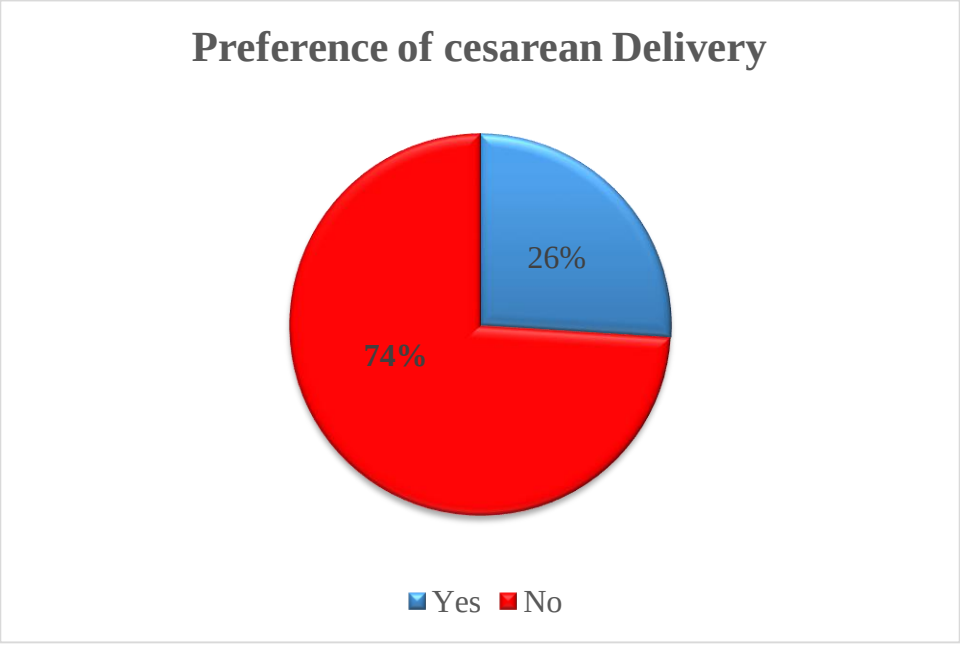

Figure 3 Maternal preference of caesarean delivery among pregnant women attending ANC in selected Public health facilities in Debre Berhan, Ethiopia, 2023.

6.4. Reasons for preference of cesarean delivery

From the mothers preferred that cesarean delivery 99(24.8%) because of CS has less Labour pain (Table 4).

Table 4: Reasons behind Women's Preference' for Caesareans delivery Among pregnant women attending ANC in selected Public health facilities in Debre Berhan, Ethiopia, 2023

Variable	Frequency	Percentage
CS has less Labour pain	99	24.8
Avoidance of emergency cesarean section	22	5.5
Safer for women	69	17.3
Less risk of fetal distress	41	10.3
A chance to choose specific date	9	2.3
quick restoration for sexual activity	12	3.0
A fashion	42	10.5
Prior negative experience from vaginal delivery	55	13.7
Health care providers were not encouraging and reassuring during previous vaginal delivery	10	2.5
Fear or the need to avoid episiotomy	31	7.8
Other	9	2.3

6.4. Factors associated with Preference of caesareans Delivery

In bivariate analysis showed that Knowledge of the respondents towards CS, Previous Satisfaction during intra partum care , Residence, Marital status , Occupation ,Planed pregnancy ,Previous spontaneous abortion, current pregnancy related obstetric problem and Discussion with partners about mode of delivery were factors associated with preference of caesarean delivery (p-value less than 0.25) and added to multivariable logistic regression analysis. In multivariate logistic regressions, Previous Satisfaction on intra partum care, current pregnancy related obstetric problem, Knowledge of the Respondents towards caesarean delivery, Previous spontaneous abortion, Residence were significantly associated with Preference of caesarean (p-value less than 0.05).

The result showed that pregnant women who lived in urban residence were 1.9 times more likely to preferred CS as compared with women who lived in rural. (AOR=1.9(1.03-3.5) P=0.038*).

Pregnant women who had previous abortion were 3 times more likely prefers CS compared to pregnant women who had no previous spontaneous abortion(AOR=3.1(1.5-6.3) P=0.001*).

Pregnant women dissatisfied in previous intra-partum care preferred CS for the current pregnancy as a mode of delivery, the degree of preference increased 6 times as compared to women who was satisfied. (AOR=6.3(3.58-11.29) P=0.01*

The other variable that was found to have significant association were knowledge of respondents about caesarean delivery, pregnant women who had no knowledge About caesarean delivery are 2.9 times more likely prefers CS as compared to had knowledge about caesarean delivery (AOR= 2.9(1.6-5.3)P=0.01*).

Pregnant mothers who had current pregnancy related obstetric problem are 4.8 times more likely prefers CS as compared to mothers who haven’t.(AOR=4.8, CI=(1.9-10),P=0.001)(Table 5).

Table5: Factors associated with Preference of caesarean delivery Caesareans Delivery Among pregnant women attending ANC in selected Public health facilities in Debre Berhan, Ethiopia, 2023

Variables	Category	Preference of cesarean deliver		COR (95%CI) AOR(95% CI) P VALUE		
		Yes	No			
Knowledge of the respondents	Not Knowledgeable	66	133	2.2(1.4-3.5)	2.9(1.6-5.3)	0.001*
	Intermediate	30	79	1.714(0.9-2.9)	2.4(0.22-5.0)	0.312
	Knowledgeable	37	167	1	1	
Previous intra partum Satisfaction	Satisfied	73	56	7 (4.5-10)	6.3(3.5-11)	0.001*
	Not Satisfied	60	323	1	1	
Residence	Urban	105	232	2.3(1.4-3.7)	1.9(1.0-3.5)	0.038*
	Rural	28	147	1	1	
Occupation	Employed	64	102	2.5(1.6-3.7)	0.5(0.26-1.07)	0.77
	Non Employed	69	277	1	1	
Planed pregnancy	Yes	110	242	2.7(1.6-4.4)	1.07(0.4-2.3)	0.858
	No	23	137	1	1	

Previous history of spontaneous abortion	**Yes**	**48**	**30**	**6.56(3.9-10.9)**	**3.1(1.5-6.36)**	**0.001***
	No	**85**	**349**	**1**	**1**	
Maternal Education	**No formal Education**	**19**	**135**	**0.1(0.6-0.21)**	**0.10(0.03-1.02)**	**0.112**
	Primary Education	**21**	**135**	**0.129(0.69-0.229)**	**0.1(0.46-1.2)**	**0.431**
	Secondary Education	**36**	**63**	**0.4(0.2-0.8)**	**0.4(0.2-1.3)**	**0.325**
	College and above	**57**	**46**	**1**	**1**	
Current Pregnancy related problem	**Yes**	**25**	**11**	**7.7(3.6-16)**	**4.8(1.9-10)**	**0.001***
	No	**108**	**368**	**1**	**1**	
Discussion with partner	**Yes**	**88**	**218**	**1.4(1.9-2.1)**	**0.8(0.4-1.4)**	**0.545**
	NO	**45**	**161**	**1**	**1**	

7. Discussion

Women's delivery preference is a subject that is widely researched and debated in many parts of the world. Women's autonomy, their satisfaction with childbirth and their active participation in the decision-making process regarding the way they want to give birth to their children are becoming increasingly important. In Ethiopia very little is known about women's preference for delivery methods and there is no evidence on mothers' preference for caesarean section. Although CS rates in Ethiopia have also increased(61).

The purpose of this study was to assess maternal preference, cesarean delivery, and associated factors in public health facilities in Debre Berhan, Ethiopia. From this study, the prevalence of cesarean delivery among pregnant women attending ANC in public health facilities was 26%. Similar studies have been conducted in Ethiopia and other countries. This result is almost similar to the study in the southern part of Ethiopia and in Harer, which is 24.6% and 28%, respectively (23, 25).

The similarity may be that both studies were conducted during the ANC visit. However, this study result showed a higher preference for CD compared to other studies conducted at the University Hospital of Asyut, Egypt, in six European countries (Belgium, Iceland, Denmark, Estonia, Norway and Sweden) where the preference for C/S was 12.2% (26, 62). The discrepancy emerged when this study interviewed mothers in the ANC unit while the reference studies were conducted in delivery units, which may reduce the tendency of mothers to choose CD because of fear of childbirth.

In this study maternal satisfaction in delivery care services were significantly associated with preference of cesarean delivery. Current pregnant mothers who delivered previously through

SVD and dissatisfied with previous intra partum care were 6 times more likely preferred CD at current pregnancy. This was in line with studies conducted in Debre Markos, Gamo Gofa Zone, and southwest Ethiopia (54, 55, 63).This could be because of those who delivered through SVD may be experience with labor pains. However, for those who have delivered by CS, may be the anesthesia relieves the pain of labor and the surgery results with satisfied.

Further, according to the findings mothers who had previous spontaneous abortion as found to have a statistically significant relationship with preference of CD. Mothers who had previous spontaneous abortion now preferred 3 times more likely CD than mothers who hadn't spontaneous abortion. This result was slightly similar with another study that was conducted in Iran(OR =1.7) (52).

There is also association between preference of cesarean delivery and residence. The findings showed that Also, living in the urban settlement was significantly associated with the preference for CD. Respondents living in the urban areas had higher odds for the preference of CD compared to rural dwellers (odd ratio of 1.9). This is in line with other studies conducted in Ghana, Nepal, and Bangalore (32, 37, 64). These could be urban women's are more likely to be more educated and hears about the CD, also are financially able to afford the increased costs of a CD. In addition, living in an urban settlement also improves access to quality medical facilities that are well-equipped to safely perform CS.

The other variable that was significantly associated to maternal preference of CD was current pregnancy related obstetric problem. Pregnant mothers who current pregnancy had related obstetric problem are four times more likely prefers CS as compared to mothers who hadn't. This finding is almost similar to a study conducted in Hawassa (57).This might be due to fear of intra partum complication.

Pregnant mothers who had no knowledge to wards cesarean delivery were two times more likely prefers CS. This is in line with a study done in urban Nigeria, Iran mothers who had no knowledge about CD (OR = 1.6) times more likely preferred CD (52, 65) . This may be due pregnant mothers with lack of knowledge couldn't fully appreciate the health risks of maternal and fetal complications of CD.

8. Conclusion

In this study the preference of cesarean delivery was high as compared to world health organization recommendation. A significant number of mothers involved in the study preferred C/S as their mode of delivery, previous Satisfaction on intra partum care, current pregnancy related obstetric problem, Knowledge of the Respondents towards caesarean delivery, Previous spontaneous abortion, Residence were significantly associated with Preference of caesarean delivery.

9. Recommendation

- **Health care providers**: should be council pregnant mothers about spontaneous abortion to reduce complication for the future pregnancy and for minimize preference of CD.
- Nurses, Midwives and other stakeholders in obstetric care should give health education and proper counselling during antenatal care to women on Caesarean section as well as birth preparedness and complication readiness.
- **MOH**: Designing strategies to enhance maternal satisfaction by strengthening adherence to intra partum care.
- **Researchers:** A qualitative study is also required to better understand women's perspectives toward preference of cesarean delivery especially among mothers who had a pregnancy-related complication.

10. Strength and Limitations of the Study

- The main strength of this study is that try to incorporate variables that were not in previous studies. Like previous satisfaction on intra partum care, knowledge towards cesarean delivery.
- Recall bias; as a limitation.

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ANNEX I

Information sheet

Title of the study: Dear participants,

My name is Lemlem Zewdu; I am maternity and reproductive health Student working on athesis research project as partial fulfilment. The research mainly focuses on preference of cesarean section, associated factors and determinants.Purpose of the study: preference of mode of delivery can play a vital role in achieving a healthy mother and healthy baby in countries like Ethiopia where there is the highest maternal death rate. Therefore, determining the preference of mode of delivery is an important issue and has its own contributions to improve maternal and new born baby's health and also to the overall health delivery system of the country. Therefore, the results of this study will have contributions to be used by policy makers, health care planners,clinicians and health promotion programs.

Confidentiality: We will use the data you gave us only for this study. We will not use your information for purposes other than the study.

Risks: No serious health hazard will be caused due to your participation in the study andif you are not participated you are not \ to be excluded from any services.

Benefit: no direct benefit for participating in the study for you as an individual but it will

Contribute much for improving health of mothers.

Procedure: If you agree to participate in the study it will take you 10 -15min, you will be

asked about questions that are related to the issue.

Agreement: After reading and listening about the study procedures and other related

issues done in the study, you will kindly be requested to put your signature of agreement.

Your signature indicates that your participation is only based on your volunteer participati

Communication: In case you have any questions, unclear ideas and doubt about the study,

you can use the following addresses:Lemlem Zewdu(0931498768, E mail lemlemzewdu5@gmail.com)

Consent form

I understand that the purpose of the study to take part in the study. I am aware of the possible risk and benefits of this study. I know that my participation in this study is voluntary. I agree to take part in this study.

SIGNATURE: ----------DATE: ----------

Questionnaire (English version)

General information

1.Date of data collection _____

2. Study ID code _____

4. Place of Data collection_____

Hospital_____

Health center_____

S.N	Questions	Options
101	Where is Your residence?	1. Urban 2. Rular
102	How old Are you?	_____Years
103	What is your current marital status?	1. Single 2. Married 3. Divorced 4. Widowed
104	What is your educational status (level)?	1. No formal education 2. Primary education 3. Secondary education 4. College and above
105	What is your partner's educational status (level)?	1. No formal education 2. Primary education 3. Secondary education 4. College and above
106	What is your occupation?	1. Government employee 2. NGO employee 3. Private employee 4. Merchant

		5. Student 6. House wife 7. Farmer 8. Other ----------
107	What is your partner occupation?	1. Government employee 2. NGO employee 3. Private employee 4. Merchant 5. Student 6. Farmer 7. Other ---------
108	Average family Monthly income	----------birr

2. Obstetric factors			
S/N	Question	Option	Skip
201	How many times have you ever been pregnant?	____times	
202	Have you had spontaneous abortion previously?	1. Yes 2. No	
203	How many times have you ever been deliver?	_____times	

204	How many live children do you have? (in number)	_____	
205	Have you previously had any health problems related to pregnancy?	1. Yes 2. No	If the answer is no please skip 206
206	If yes, please specify	----------	
207	What was previous place of delivery?	1. Home 2. health center 3. Hospital 4. Private institution	
208	Is the current pregnancy planed?	1. Yes 2. No	
209	Do you have encounter any obstetric complication in the current pregnancy?	1. Yes 2. No	If the answer is no please skip 211
210	If Yes for the above question ,Please specify the problem.	----------	
211	Gestational age (in weeks)	----------	

212	How many ANC visit do you have in the current pregnancy?	_____ANC visit	
213	Did you discussed with your partner about mode of deliveries?	1. Yes 2. No	
214	Did your partner support you with your decision regarding 220mode of delivery?	1. Yes 2. No	
215	Where do you prefer to deliver for the current pregnancy?	1. Public Hospital 2. Public Health Center 3. Private Clinic	
216	Have you ever counselled on mode of delivery from health care provider?	1. Yes 2. No	
217	Do you have a close friend or family member who has delivered by cs?	1. Yes 2. No	
218	Do you have full freedom to decide about your mode of delivery?	1. Yes 2. No	

3.Maternal satisfaction in previous mode of delivery

	strongly dissatisfied =1 , dissatisfied=2, Neutral=3 satisfied=4 strongly satisfied 5					
S/N	Questions	1	2	3	4	5
301	Availability, accessibility, and cleanliness of toilet					
302	Cost of services					
303	Respectful (by birth attendants)					
304	Verbally encouragement by birth attendants					
305	Adequacy of time spent with you by birth attendants					
306	Delivery position					
307	Privacy of delivery care processes					
308	Welcoming by birth attendants					
309	Pain management					
310	Allowing families on your side					

Part 4 Knowledge assessing questions		
S/N	Questions	Option
401	Cesarean delivery is less painful?	1. Yes 2. No
402	Maternal complications of cesarean delivery are greater	1. Yes 2. No
403	Infection risk of cesarean delivery is higher than vaginal delivery	1. Yes

		2. No
404	Emotional relationship between mother and baby after vaginal delivery is better	1. Yes 2. No
405	Infants born by CS are good compared with those born by vaginal delivery	1. Yes 2. No
406	Infant bone fractures are impossible in CS	1. Yes 2. No
407	Caesarean section delivery is less complication for babies as compared to vaginal delivery	1. Yes 2. No
408	Respiratory disorders in infants born by CS are less than vaginal delivery	1. Yes 2. No
409	Hemorrhage after cesarean delivery is less than vaginal delivery	1. Yes 2. No
410	CS is reasonable when the baby is in breech presentation	1. Yes 2. No

Part 5: Attitude scores of antenatal mothers attitude towards caesarean delivery

strongly disagree =1 , disagree=2, Neutral=3 agree=4 strongly agree 5

SN	Questions	1	2	3	4	5
501	Caesarean section is better than vaginal delivery.					

502	Would prefer caesarean section because I don't like to go through all the position and straining of vaginal delivery.					
503	Would prefer caesarean section because I don't like to go through labour pain.					
504	Baby born by caesarean are more healthy					
505	CS is better because we can undergo tubal ligation at same setting.					
506	CS is better because prevents bladder and Uterine prolapse.					
507	CS is better because it prevents deformation and tear in genital tract.					
508	I would prefer caesarean section even with its inherent complications.					
509	CS should be performed as a choice of the mother)					
510	CS should be performed when vaginal delivery is risky					

6. Preference of mode of delivery			
S/N	**Questions**	**Options**	**Skip pattern**
601	Have you ever been planning about your mode of delivery?	1.yes 2.no	
602	If you are given the freedom to decide alone, which mode of delivery do you	1.vaginal 2.Caesarean section	If the answer is 1 skip Q 603 or If 2 please skip question 604.

	prefer?		
603	Why you preferred C/S? *(More than one answer possible)*	1.less Labour pain 2.Avoidance of emergency cesarean section 3.Safer for women 4. Less risk of fetal distress 5. A chance to choose specific date 6.quick restoration for sexual activity 7. A fashion 8. Prior negative experience from vaginal delivery 9. Health care providers were not encouraging and reassuring during previous vaginal delivery 10. Fear or the need to avoid episiotomy, 11. other	

604	Why you preferred SVD ? *(More than one answer possible)*	1. Natural process 2. Faster recovery 3. Healthier babies 4. Less pain after delivery 5. Easier breast feeding 6. No scar 7. Shorter hospital stay 8. No operative or anaesthetic risk 9. Lower risk of morbidity and mortality 10. No parity limits 11. Less costly 12. Health care providers encouragingduring labour 13. Others	

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Annex II: Questionnaire (Amharic versions)

አባሪ የመረጃ ወረቀት

የጥናቱ ርዕስ፡- ውድ ተሳታፊዎች ስሜ ለምለም ዘውዱ እባላለሁ:: የእናቶች እና ስነ ተዋልዶ ጤና ተማሪ ነኝ የመመረቂያ ፅሁፍ የመዉለድ ዘዴን መምረጥ ላይ እየሰራሁ ነው። ጥናቱ በዋናነት የሚያተኩረው በቀዶ ጥገና ወሊድ ምርጫ ፡ ተያያዥ ምክንያቶች እና መወሰኛዎች ላይ ነው።

የጥናቱ ዓላማ፡ የመውለድ ዘዴን መምረጥ ጤናማ እናት እና ጤናማ ህጻን ለማግኘት ከፍተኛ የእናቶች ሞት ፡ባለባቸው እንደ ኢትዮጵያ ባሉ አገሮች ውስጥ ወሳኝ ሚና ይጫወታል። ስለዚህ የወሊድ ምርጫን መወሰን ጠቃሚ ጉዳይ ሲሆን የእናቶች እና አዲስ የተወለዱ ሕፃናትን ጤና ለማሻሻል እና ለሀገሪቱ አጠቃላይ የጤና አሰጣጥ ስርዓት የራሱ አስተዋፅኦ አለው ። ስለዚህ የዚህ ጥናት ውጤት በፖሊሲ አውጪዎች፣ በጤና አጠባበቅ እቅድ አውጪዎች፣ ክሊኒኮች እና የጤና ማስተዋወቅ ፕሮግራሞች ጥቅም ላይ የሚውል አስተዋፅኦ ይኖረዋል።

ምስጢራዊነት፡ የሰጡንን መረጃ ለዚህ ጥናት ብቻ እንጠቀምበታለን። የእርስዎን መረጃ ከጥናቱ ውጪ ለሌላ ዓላማዎች አንጠቀምበትም።

ስጋቶች፡ በጥናቱ በመሳተፍዎ ምንም አይነት ከባድ የጤና ስጋት አይፈጠርም እና ካልተሳተፉ ከማንኛውም አገልግሎት አይገለሉም።

ጥቅማ ጥቅሞች፡- በጥናቱ ላይ መሳተፍ ለእርስዎ እንደ ግለሰብ ምንም ቀጥተኛ ጥቅም የለም ነገር ግን ይህ ይሆናል። ለእናቶች ጤና መሻሻል ከፍተኛ አስተዋጽኦ ያበረክታል ።

ሂደት፡ በጥናቱ ለመሳተፍ ከተስማሙ ከ10-15 ደቂቃ ይወስዳል፡ ከጉዳዩ ጋር በተያያዙ ጥያቄዎች ይጠየቃሉ።

ስምምነት፡- በጥናቱ ውስጥ ስለተደረጉት የጥናት ሂደቶች እና ሌሎች ተያያዥ ጉዳዮች አንብበው እና ካዳመጡ በኋላ የስምምነት ፊርማዎን እንዲያቀርቡ በአክብሮት ይጠየቃሉ።

እምቢ የማለት ወይም የመውጣት መብቶች፡ በዚህ ጥናት ውስጥ ላለመሳተፍ ሙሉ መብት አልዎት። ልክ እንደ ተሳታፊ፡ ማንኛውንም ጥያቄ ወይም በጥናቱ ላይ ማብራሪያ ከፈለጉ የመጠየቅ መብት አልዎት።

ፊርማዎ የሚያሳየው ተሳትፎዎ በፈቃደኝነት ተሳትፎዎ ላይ ብቻ የተመሰረተ መሆኑን ነው። መግባበት ማንኛቸውም ጥያቄዎች፣ ግልጽ ያልሆኑ ሃሳቦች እና በጥናቱ ላይ ጥርጣሬ ካሎት የሚከተሉትን አድራሻዎች መጠቀም ይችላሉ። Lemlem Zewdu(0931498768፣ ኢሜል lemlemzewdu5@gmail.com)

የፍቃድ ቅፅ የጥናቱ ዓላማ በጥናቱ ውስጥ ለመሳተፍ እንደሆነ ተረድቻለሁ። የዚህ ጥናት ሊያስከትል የሚችለውን አደጋ እና ጥቅሞች አውቃለሁ፡በዚህ ጥናት ውስጥ ያለኝ ተሳትፎ በፈቃደኝነት እንደሆነ አውቃለሁ። በዚህ ጥናት ለመሳተፍ ተስማምቻለሁ።

ፊርማ፡---------- ቀን: --/--/----መጠይቅ (የእንግሊዘኛ ቅጂ)

አጠቃላይ መረጃ

1. የቃለ መጠይቁ ቀን ____

2. የጥናት መታወቂያ ኮድ _____

4. የመረጃ መሰብሰቢያ ቦታ:.

ሆስፒታል_____

ጤና ጣቢያ_____

ክፍል 1: - ማህበራዊ-ሕዝብ ባህርያት		
ጥ.ቁ	ጥያቄዎች	አማራጮች

101	መኖሪያዎ የት ነው?	1. ከተማ 2. ገጠር
102	ስንት አመትዎ ነው?	____ዓመታት
103	በአሁኑ ጊዜ የትዳር ሁኔታ ምንድን ነው?	1. ያላገባች 2. ያገባች 3. የተፋታች 4. ባል የሞተባት
104	የትምህርት ደረጃዎ ምን ያህል ነው?	1. መደበኛ ትምህርት ያልተማረች 2. የመጀመሪያ ደረጃ ትምህርት 3. የሁለተኛ ደረጃ ትምህርት 4. ኮሌጅ እና ከዚያ በላይ
105	የትዳር አጋርዎ የትምህርት ደረጃ ?	1. መደበኛ ትምህርት ያልተማረች 2. የመጀመሪያ ደረጃ ትምህርት 3. የሁለተኛ ደረጃ ትምህርት 4. ኮሌጅ እና ከዚያ በላይ
106	ሥራዎ ምንድን ነው?	1. የመንግስት ሰራተኛ 2. መንግስታዊ ያልሆነ ድርጅት

		ሰራተኛ 3. የግል ሰራተኛ 4. ነጋዴ 5. ተማሪ 6. የቤት እመቤት 7. ገበሬ 8. ሌላ ----------
107	የባለቤትዎ ሥራ ምንድን ነው?	1. 1. የመንግስት ሰራተኛ 2. መንግስታዊ ያልሆነ ድርጅት ሰራተኛ 3. የግል ሰራተኛ 4. ነጋዴ 5. ተማሪ 6. ገበሬ 7. ሌላ ----------_____
108	አማካይ የቤተሰብ ወርሃዊ ገቢ	_____(የኢትዮጵያ ብር)

2. የወሊድ ምክንያቶች			
ጥ.ቁ	ጥያቄዎች	አማራጮች	ዝለል
201	ስንት ጊዜ አርግዘው ያውቃሉ?	_____ጊዜ	
202	ከዚህ በፊት ባልታሰበ ሁኔታ(በድንገት)ፅንስ አስወረድዎት ያውቃል?	1. አዎ 2. አይ	
203	ስንት ግዜ ወልደው ያውቃሉ?	_____ ጊዜ	
204	በህይወት የተወለዱ ስንት ልጆች አለዎት?	____ በህይወት የተወለደ	
205	ከዚህ ቀደም ከእርግዝና ጋር የተያያዙ የጤና ችግሮች አጋጥሞዎት ያውቃሉ?	1. አዎ 2. አይ	መልስዎ አይ ከሆነ ጥያቄ ቁጥር 206 ን ዝለሉት
206	አዎ ከሆነ፣ እባክዎን ይግለጹ	_____	
207	ከዚህ በፊት የወለዱበት ቦታ የት ነበር?	1.ቤት 2ጤና ጣቢያ 3.ሆስፒታል 4.የግል የህክምና ተቋም	
208	የአሁኑ እርግዝና የታቀደ ነው?	1. አዎ 2. አይ	

209	በዚህ የእርግዝና ወቅት የደረሰብዎ ችግር አለ?	1.አዎ 2.አይ	መልስዎ አይ ከሆነ ጥያቄ ቁጥር 210 ን ዝለሉት
210	መልስዎ አዎ ከሆነ የደረሰብዎትን ችግር ግለፁ?	----------	
211	እርግዝናው ከተከሰተ ምን ያህል ሳምንት ሆንዎት?	ሳምንት	
212	በአሁኑ እርግዝና ምን ያህል የነፍሰጡር ጉብኝት አደረጉ?	_____የነፍሰጡር ጉብኝት	
213	ስለ ወሊድ ዘዴ ትዳር አጋርዎ ጋር ተወያይተዋል?	1. አዎ 2. አይ	
214	የወሊድ ዘዴን በተመለከተ ባደረጉት ውሳኔ አጋርዎ ደግፎዎታል?	1. አዎ 2. አይ	
215	በአሁኑ እርግዝናዎት የት ለመዉለድ አስበዋል?	1.የህዝብ ሆስፒታል 2. ጤና ጣቢያ 3. የግል ክሊኒክ	
216	ስለ ወሊድ ዘዴ ከጤና ባለሙያ የተሰጥዎት መረጃ አለ?	1. አዎ 2. አይ	
217	በቀዶ ጥገና ወሊድ የወለዱ በቅርብ ሊገኝ የሚችል ጓደኛ ወይም	1.አዎ	

	ቤተሰብ አልዎት?	2. አይ	
218	የወሊድ ዘዴዎትን ለመወሰን ሙሉ ነፃነት አልዎት?	1.አዎ 2. አይ	

3. እናቶች በቀድሞው ወሊድ ወቅት አግኝተው የነበረው እርካታ						
	1.በጣም እልረካሁም ,2.አልረካሁም ,3.ከሃሳቡ ገለልተኛ ነኝ 4. እረክቻለሁ, 5.በጣም እረክቻለሁ					
ጥ.ቁ.	ጥያቄዎች	1	2	3	4	5
301	በወቅቱ በቅርበት እና ንፅህናው በተጠበቀ መልኩ መፀዳጃ ቤት አግኝተዋል?					
302	አገልግሎት የሚያገኙበት ክፍያ ተመጣጣኝ ነበር?					
303	በአዋላጅ ባለሙያዎች ተቀባይነትን አግኝተው ነበር?					
304	እርስዎን ያዋለድዎት ባለሞያዎች የቃላት ማበረታቻ ይሰጥዎት ነበር?					
305	የአዋላጅ ባለሙያዎቹ ለእርስዎ በቂ ጊዜ ይሰጥዎት ነበር?					
306	ለወሊድ የተጠቀሙበት አተኛኝ ወይም አቀማመጥ ምቹ ነበር?					
307	በወለዱበት ወቅት የተሰጥዎት አገልግሎት ግላዊነትን የጠበቀ ነበር?					
308	በአዋላጅ ባለሙያዎች የተደረገልዎት ጥሩ አቀባበል ረክተዋል?					
309	በወሊድ ወቅት ህመም እንዳይሰማዎት የተደረገ ጥረት ምን ያህል ነው?					
310	በሚወልዱበት ወቅት ቤተሰቦችዎ ከጎንዎ እንዲሆኑ ተፈቅድዎልዎት ነበር?					

ክፍል 4 የእውቀት ግምገማ ጥያቄዎች		
ጥ.ቁ	ጥያቄዎች	አማራጮች
401	በቀዶ ጥገና መውለድ አነስተኛ ህመም አለው ::	1.አዎ 2.አይ
402	በቀዶ ጥገና መውለድ የእናቶች ውስብስብ ችግሮች ከፍተኛ ናቸው ::	1.አዎ 2.አይ
403	በቀዶጥገና መውለድ የኢንፌክሽን አደጋ .አምጦ ከመውለድ የበለጠ ነው::	1.አዎ 2.አይ
404	አምጦ ከወለዱ በኋላ በእናትና በሕፃን መካከል ያለው ስሜታዊ ግንኙነት የተሻለ ነው::	1.አዎ 2.አይ
405	በቀዶ ጥገና የተወለዱ ሕፃናት አምጦ ከተወለዱት ጋር ሲነፃፀሩ ጥሩ ናቸው ::	1.አዎ 2.አይ
406	የሕፃናት አጥንት ስብራት በቀዶ ጥገና ወሊድ የማይቻል ነው::	1.አዎ 2.አይ
407	በቀዶ ጥገና መውለድ ለህፃናት አምጦ መውለድ ጋር ሲነፃፀር አነስተኛ ውስብስብ ነው::	1.አዎ 2.አይ
408	በቀዶ ጥገና የተወለዱ ሕፃናት ውስጥ የመተንፈስ ችግር አምጦ ከመውለድ ያነሰ ነው::	1.አዎ

		2.አይ
409	በቀዶ ጥገና ከወለዱ በኋላ የደም መፍሰስ አምጦ ከመውለድ ያነሰ ነው::	1.አዎ 2.አይ
410	የሕፃኑ አመጣጥ በቂጡ በሚሆንበት ጊዜ የቀዶ ጥገና ወሊድ ምክንያታዊ ነው?	1.አዎ 2.አይ

ክፍል 5፡ የቅድመ ወሊድ እናቶች በቀዶህክምና መውለድን በተመለከተ ያላቸው የአመለካከት ውጤቶች						
በጣም አልስcም =1 አልስማማም =2 ገለልተኛ=3, እስማማለሁ=4, በጣም እስማማለሁ =5						
ጥ.ቁ	ጥያቄዎች	1	2	3	4	5
501	በቀዶ ህክምና መውለድ ከ አምጦ መውለድ የተሻለ ነው።					
502	*መንቀሳቀስ ስለማልወድ በቀዶ ህክምና መውለድን እመርጣለሁ።*					
503	በቀዶ ጥገና መውለድን እመርጣለሁ ምክንያቱም የምጥ ህመም ማለፍ አልወድም።					
504	በቀዶጥገና የተወለደ ሕፃን የበለጠ ጤናማ ነው።					
505	በቀዶ ጥገናመውለድ የተሻለ ነው ምክንያቱም ቱባል ligation በተመሳሳይ					
506	በቀዶ ጥገና መውለድ የተሻለ ነው ምክንያቱም የሽንት ፊኛ እና ማህፀንን ከመውደቅ ይከላከላል					
507	በቀዶ ጥገና መውለድ የተሻለ ነው ምክንያቱም የብልት መበላሸት					

	እና ወደ ዉጪ ከመዉጣት ይከላከላል					
508	በቀዶ ጥገና ወሊድ በተፈጥሮው ውስብስብ ችግሮች ቢኖሩት እንኳን እመርጣለሁ።					
509	ቀዶ ጥገና ወሊድ እንደ እናት ምርጫ መከናወን አለበት::					
510	አምሮ መውለድ አደገኛ በሚሆንበት ጊዜ ቀዶ ጥገና ወሊድ መከናወን አለበት::					

የወሊድ ዘዴ ምርጫ			
ጥ.ቁ	ጥያቄዎች	አማራጮች	ዝለል
601	ስለ ወሊድ ዘዴ አቅደው ነበር?	1.አዎ 2.አይ	
602	ለብቻዎ የመወሰን ነፃነት ከተሰጠዎት የትኛውን የወሊድ ዘዴ ይመርጣሉ?የእርስዎ ምርጫ የወሊድ ዘዴ ምንድነው?	1አምሮ መውለድ 2.የቀዶ ጥገና	መልሱ አምሮ መውለድ ከሆነ እባክዎን ጥያቄ 503 ይዝለሉ ወይም መልሱ .የቀዶ ጥገና መውለድ ከሆነ እባክዎን ጥያቄ 504 ይዝለሉ።
603	.የቀዶ ጥገና መውለድ ለምን መረጡት?	1. ያነሰ ምሮ ህመም 2. ያነሰ የእናቶች የአደጋ የቀዶ ጥገና መራቅ 3. ለሴቶችደህንነቱ የተጠበቀ	

		4. ጭንቀት ያነሰ አደጋ ያነሰ የደም መፍሰስ 5. የተወሰነ ቀን የመምረጥ እድል በረጅም ጊዜ ውስጥ የተሻለ 6. ለጾታዊ እንቅስቃሴ ፈጣን እድሳት 7. ፋሽን 8. የበፊት አምጦ መውለድ አሉታዊ ልምድ 9. የጤና አጠባበቅ አቅራቢዎች ከዚህ ቀደም አምጦ ለመውለድ አበረታች አልነበሩም 10. ፍርሃት ወይም አስፈላጊ ኤፒሲዮሞሚዎችን ያስወግዱል ፣ 11.ሌላ	
604	አምጦ መውለድ ለምን መረጡት?	1. ተፈጥሯዊ ሂደት 2. ፈጣን ማገገም 3. ጤናማ ሕፃናት 4. ከወሊድ በኋላ ያነሰ ህመም 5. ጡት ማጥባት ቀላል ነው። 6. ጠባሳ የለም 7. አጭር የሆስፒታል ቆይታ 8. ምንም የቀዶ ሕክምና ወይም ማደንዘዣ አደጋ	ከአንድ በላይ መልስ ይቻላል

		የለም 9. ዝቅተኛ የበሽታ እና የሞት አደጋ 10. ምንም እኩልነት ገደቦች የሉም 11. አነስተኛ ወጪ 12. የጤና እንክብካቤ አቅራቢዎች በወሊድ እና/ወሊድ ጊዜ አበረታችነት 13. ሌላ	

Annex III: Declaration

I undersigned was agree to accept all responsibilities for the scientific and ethical conduct of the research. I was provide timely progress report to my advisors and seek the necessary advice and approval from my primary advisors in the course of the research. I was communicate timely to my advisors for this research.

Date of submission.....

Name of the Investigator: Lemlem Zewdu (Bsc)

Signature: .....