



ARSI UNIVERSITY
COLLEGE OF HEALTH SCIENCES

PREFERENCES FOR THE GENDER OF BIRTH ATTENDANTS AND
ASSOCIATED FACTORS AMONG PREGNANT WOMEN ATTENDING
ANTENATAL CLINICS AT ASELLA TOWN PUBLIC HEALTH FACILITIES IN
THE OROMIA REGION, ETHIOPIA, 2024

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ABBREVIATIONS AND ACRONYMS

ANC	Antenatal Care
AOR	Adjusted Odd Ratio
AUTRH	Arsi University Teaching and Referral Hospital
ETB	Ethiopian Birr
COR	Crude Odd Ratio
IDIs	In-Depth Interviews
IRB	Institution Review Board
MMR	Maternal Mortality Ratio
SBA	Skill Birth Attendant's
SSA	Sub-Saharan Africa
SVD	Spontaneous Vaginal Delivery
WHO	World Health Organization

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Abstract

Background: Gender preference is the women's desire for the same gender or a different gender during childbirth which is influenced by several factors, like comfort, trust, privacy, and cultural beliefs. However, in developing countries, it was not well studied including in Ethiopia. Therefore, this study aims to assess pregnant women's preferences for the gender of birth attendants and associated factors among those attending Antenatal clinics in Asella town public health facilities.

Method: A concurrent mixed-methods design was conducted from October to December 2024. Overall, 410 respondents for quantitative were selected by systematic random sampling technique, while purposive sampling was used for the qualitative data based on data saturation. Data were collected for quantitative and qualitative using face-to-face and in-depth interviews respectively. Multinomial logistic regression analysis was conducted at a 95% CI with a significance level ($p < 0.05$) for quantitative data while thematic analysis was used for qualitative data.

Result: The study findings show that 55.8% had no specific preference, 25.9% preferred a male, and 18.3% preferred female birth attendants. In Multinomial logistic regression analysis, previous experience with male birth attendants (AOR: 2.048, 95% CI: 1.185-3.537), planned current pregnancy (AOR: 0.475, 95% CI: 0.229-0.986), and parity one (AOR: 3.393, 95% CI: 1.298-8.870) and parity two (AOR: 3.541, 95% CI: 1.290-9.725) were significantly associated to the male preference. Residence (AOR: 3.411, 95% CI: 1.447-8.039), and (AOR: 2.489, 95% CI: 1.040-5.957) were significantly associated with male and female gender preference respectively. Attitudes towards birth attendants were significantly associated with male and female preferences at (AOR: 0.081, 95% CI: 0.045-0.145), and (AOR: 0.066, 95% CI: 0.034-0.127). The thematic analysis revealed that the gender preference for birth attendants was influenced by personal experience, emotional comfort, skills, and empathy.

Conclusion and recommendation: The findings of the study highlighted over half of the women had no gender preference. Previous experience, residence, and parity were associated

with gender preference. The concerned bodies would focus on patient-centered care and further research for exploring factors of gender preference in wider areas.

Keywords: Gender Preference, Pregnant Women, Birth Attendants

1. INTRODUCTION

1.1. Background

Gender preference is the women's desire for the same gender or a different gender during childbirth that is influenced by several factors, like comfort, trust, privacy, and cultural beliefs (1–3). As maternal health remains a serious focus globally, considering such preferences, and empowering healthcare systems to provide services effectively and efficiently, well-trained interested personnel were necessary for improving service delivery and promoting better healthcare outcomes (4,5). Regardless of notable advancements to gender equality in different parts of the regions, significant gaps still exist, especially in the areas of maternal and reproductive health services provisions (6).

The preference for the gender of birth attendants plays a vital role in women's decision-making concerning the practice of maternal health services, which is affected by factors such as comfort, effective communication, cultural norms, and the perceived ability of the birth attendants to provide sensitive care (7). Different studies have revealed that a significant number of women, about 87% of participants in Israel, preferred a female birth attendant, their preferences were due to discomfort with male birth attendants, where intimate procedures are done(8). In Sub-Saharan African countries, including Ethiopia, the women's preference for birth attendants was influenced by cultural, social, and economic factors, and individual factors, with a prominent inclination toward preferring female birth attendants, were related to cultural beliefs, privacy, and personal comfort(9,10).

Still, limited data existed on the preferences and associated factors of birth attendant gender among antenatal care (ANC) attendants in Ethiopia, particularly in the study area. Existing studies have mostly used quantitative cross-sectional designs that do not identify the depth or the underlying reasons for women's preference(8,11). A more nuanced understanding of these factors is necessary to develop culturally sensitive interventions that can enhance maternal healthcare utilization in the region.

1.2. Statements of the Problem

Gender preference in the selection of birth attendants was a significant issue in maternal health, influencing healthcare access and outcomes across varied regions worldwide, where maternal mortality remains a major public health challenge, especially in developing nations like Ethiopia female birth attendants were more pronounced in rural areas, where traditional gender roles and norms play critical role in shaping women's healthcare choice(1,7). Underuse of skilled birth attendants (SBAs) during labor is a significant factor in maternal mortality (12). Skilled birth attendants (SBAs), which include physicians with obstetric training and midwives, can significantly reduce the risk of complications during childbirth for both mothers and newborns (13). Even though there is progress in the maternal mortality ratio (MMR) in Ethiopia, the World Health Organization (WHO) Trends in Maternal Mortality From 2000 to 2020, show 267 deaths per 100,000 live births which indicates dedicated efforts to improve maternal health outcomes (4).

Studies in South Asia, Sub-Saharan Africa, and the Middle East showed that women prefer female Skilled birth attendants(SBAs), due to cultural, and societal norms surrounding modesty, perceived as male providers were not appropriate for intimate procedures like vaginal examinations, can significantly affect their decision to utilize maternity service(10). Other studies in Bangladesh, India, and Ethiopia confirm that when women's gender preferences are not met in health facilities, they delay seeking skilled care, which results in poor maternal and neonatal outcomes(14). Studies in Ethiopia in Ambo Town prefer female delivery attendants (41.5%) over male midwives (23.7%), preferences are influenced by several factors, including farming occupation status, lack of formal education, religion, and being housewife position (8). The preference in Debre Markos town was found to be 36% for female birth attendants and 16.8% for male attendants; preference was found to be correlated with younger age, higher education, and prior assisted vaginal birth (1). The perception that male healthcare attendants lack empathy and cultural competency, especially those in rural areas, leads women to prefer unskilled birth instead of seeking care at health facilities(15).

Evidence shows that to improve maternal health outcomes by enhancing access to skilled birth attendants and increasing women's comfort and satisfaction. Many countries and international

organizations like WHO and UNICEF have implemented programs to increase the number of female birth attendants in rural and underserved areas, to address gender preference in maternal health services(4,16). In Ethiopia, also presence of female midwives in rural health centers has increased the number of women accessing skilled birth attendants, contributing to a decrease in maternal mortality(17). Failure to address gender preference can lead to seeking healthcare facilities being undermined, thus women who didn't have a positive experience with the healthcare system are less likely to seek care in subsequent pregnancies(18).

Despite these findings, there is still limited comprehensive data on how women's preferences and the gender of their birth attendants vary across different regions of Ethiopia, particularly in Oromia, one of the most populous regions. Understanding these preferences is vital for designing culturally appropriate and effective strategies to encourage the use of skilled birth attendants and improve maternal health outcomes in the country.

The existing study explores that the preferences of birth attendants' gender mostly focus on pregnant women, rather than the specific experiences and views of ANC attendants, who interrelate more directly with the healthcare system. Using a mixed method were essential for a thorough understanding of these factors and for creating culturally sensitive issues, and interventions that successfully enhance maternal healthcare utilization in the study area.

To overcome gaps, this study aims to assess the pregnant women's preferences for gender of birth attendants and associated factors among those attending Antenatal care clinics in Asella town public health facilities in Oromia, Ethiopia.

1.3. Significance of Study

This study is significant for several key areas related to maternal healthcare. By exploring pregnant women's preferences regarding the gender of their birth attendants and identifying the factors that influence these preferences, the findings offer valuable insights that can enhance healthcare practices. They provide evidence of the specific needs and expectations of pregnant women and inform policy development aimed at improving access to care, enhancing patient satisfaction, and achieving better maternal outcomes. It was crucial for optimal staffing decisions, ensuring that healthcare providers were better matched with patients based on their gender preferences. Additionally, the findings supported the development of gender-sensitive training for birth attendants, which led to more respectful, culturally competent, and comfortable experiences for women during childbirth.

Furthermore, this research contributed to the broader goal of improving maternal health services, which could lead to a reduction in maternal mortality by addressing women's preferences and improving the quality and accessibility of healthcare. This research acts as a useful reference for upcoming researchers focusing on gender preferences in maternal healthcare by offering insights and information that could facilitate further studies in other regions with comparable contexts.

2. LITERATURE REVIEW

2.1 Maternal Health and Skilled Birth Attendants (SBA)

Maternal health is the health of a woman during pregnancy, childbirth, and the postpartum period, including physical and mental health, and the other health care dimensions of family planning, preconception, prenatal, and postnatal care which remains a critical global health concern, particularly regarding the need for skilled birth attendants (SBAs), who are trained health professionals essential for providing high-quality care during childbirth and decreasing maternal mortality and complications (19). Still, skilled birth attendant (SBAs) utilization is low which has contributed to the slow decline of maternal mortality, even though maternal healthcare services are provided free (3). Whereas preferences can exist, SBAs play a vital role in safeguarding safe and healthy childbirth experiences irrespective of the birth attendant's gender (13).

According to the World Health Organization (WHO) in 2020, it was estimated that 287,000 women died from pregnancy-related complications, which indicates that every day, 800 women die and nearly 95% of these deaths happen in low- and lower-middle-income countries (19). According to a meta-analysis done in China there was a strong relationship between increased utilization of SBA and reduced maternal mortality rates, indicating that the presence of a skilled birth attendant highly decreased the risk of maternal death during childbirth (13). The study in Malawi and Nigeria revealed that the most influential factors challenging accessing skilled birth attendance were distance from health facilities, lack of transportation, and financial costs (16,20).

In Ethiopia, SBA utilization is vital in enhancing the overall health and well-being of both mothers and newborns throughout pregnancy, not only to decrease the mortality rate alone (21). Identifying the women's preferences for their birth attendants' gender is important, as the women's lack of a preferred gender may hinder them from seeking skilled care completely (8). Accepting these women's preferences for their birth attendants' gender was important for fostering a positive birthing experience, and a supportive environment, and bringing a more

positive childbirth outcome(13). Studying the birth attendants' preferences can inform the healthcare policies, encouraging healthcare resources for training and refreshing the skilled birth attendant workers, especially in increasing the utilization rates(15).

2.2 Prevalence of Women's Preferences for Birth Attendant Gender

The preference for a skilled birth attendant (SBA) during childbirth is a significant decision for women and is strongly shaped by cultural, societal, and psychological factors, with cultural norms frequently choosing modesty and confidentiality, leading many women to prefer female providers (7). Even if the availability of qualified healthcare providers was essential the gender of the skilled birth attendants in low and middle-income countries shaped the preferences of the women(20). Study conducted in the Asian nations of India(80%), and Nepal(71%), and in a qualitative study in Bangladesh(75%) particularly in rural areas, there was a high preference for female SBAs, influenced socio-cultural was the major factor that affected the preference, and the perception of empathy and care given by female providers also affected the preference(7).

In the studies conducted in other Latin American countries of Brazil, approximately 50%, and in Colombia(47%) women preferred female SBAs, influenced by apparent communication skills and provider empathy influenced the choice of their skilled birth attendants(22). Similarly, studies from Nigeria(55%), prefer female providers due to the concern about modesty and privacy, Ghana(65), and Kenya(60%) regularly show that the preference for female skilled birth attendants is always related to socio-cultural practices, and feelings of privacy during childbirth were common(2,3,15).

Compared to research conducted worldwide, Ethiopian women's preferences regarding birth gender attendants are noticeably lacking in thorough data. A cross-sectional study in Ethiopia, Ambo Town, and Debre Markos Town showed that 41.5% and 36% of pregnant women preferred female midwives for their birth attendants, which were affected by several factors such as age, religion, education level of pregnant women, and occupational status affects their preferences, and uncomfortable with male birth attendants due to cultural conventions and individual preferences (1,8).

2.3 Factors Associated with Preferences for Gender of Birth Attendants

2.3.1 Sociodemographic Factors

Sociodemographic factors for the preference of birth attendant gender among pregnant women such as younger age, culture, and economic status interrelated with socio-cultural contexts greatly influenced women's decisions about childbirth (1,8,21). On the other hand, elderly women can indicate a greater preference for female providers due to the effect of traditional gender norms (9).

A study conducted in rural Pakistan shows women and their husbands with higher education are more likely to consider factors beyond gender, such as provider competency, as they have a more nuanced understanding of healthcare; while those with lower education prefer female birth attendants related to traditional views on modesty, and when male attendants are perceived as skilled, educated women may be more open to them as birth attendants, with women in certain professions, like healthcare, often having differing views on the gender of birth attendants due to their professional experiences and exposure to diverse healthcare environments (23). Another study conducted in Ethiopia, Debre Markos town displays a relationship between women's educational achievement with male birth attendant preference and women from low-income families affordability rather than gender preferences (1).

Married women might adhere to cultural expectations and have established support systems, while unmarried women might have more autonomy in decision-making (11). Women whose husbands have higher-status occupations are more likely to prioritize factors such as the competence of healthcare providers, as opposed to those whose husbands have lower-status occupations, who may place more emphasis on traditional practices or financial constraints for delivery preference (23). In a systematic review and meta-analysis study conducted on institutional delivery service utilization in Ethiopia, women in urban were often exposed to gender equality initiatives and had access to more healthcare options, which made them more open to male providers, whereas women in rural settings were affected by socio-cultural ideologies, thus urban reside more prefer male birth attendants (24).

2.3.2 Obstetric History-Related Factors

A woman's birth attendant gender preference was influenced by last pregnancy delivery experiences, women with prior positive delivery experience prefer the same gender they were attended to before, while those experiencing negative delivery practice may prefer other than the

previous birth attendant gender for care(17). In other way, women who experienced more supportive and empathic care from the female birth attendant may prefer females again (7).

During their previous deliveries, women who have faced complications such as traumatic birth experiences, miscarriage or stillbirth, or high-risk pregnancies developed specific gender preferences based on the quality of care they received during their critical time, women who experienced empathy and care from male birth attendants during their critical time of delivery might prefer male attendants in future pregnancies (9). On the other hand, women who complained of complicated obstetric histories and were handled more emotionally by female attendants prioritize gender as a significant factor in their preference for healthcare providers (8).

Women with a history of instrumental or cesarean deliveries preferred male attendants due to the view that male providers were more skillful in managing complicated labor and difficult circumstances(25). In the same way, women who developed different medical conditions like gestational diabetes preferred female birth attendants because of their emotional support and holistic care (26). The women who develop obstetric problems, such as preterm labor or fetal distress, their preferences were influenced by the care or the intention to which the birth attendant managed the difficult circumstances(27).

2.3.3 Socio-Cultural Related Factors

Socio-cultural factors had a major influence in determining women's gender preferences for their birth attendants gender such as social, cultural, and religious beliefs like traditional practices, norms, peer pressures, community leaders, and the availability of healthcare resources(11,17). In rural parts of the study areas where dominant traditional practices women had a strong impact on the preference for female birth attendants (18,24). In the Middle East, North Africa, and parts of Ethiopia, religious ideologies like purdah in Islam and traditional practices influence preferences for female birth attendants due to modesty and cultural norms(2,11). Different traditional beliefs and indigenous healing practices in sub-Saharan Africa influenced the preference of women for their birth attendants (24). Cultural practices, norms, and religious ideologies in Ethiopia influence women to prefer female birth attendants (18).

2.3.4 Healthcare-Related Factors

Women who give birth in private settings frequently get to choose their attendants according to their preferences, which may include gender (23). Providers' availability also influences women's decision to seek care, the shortage of healthcare professionals, particularly female providers, limits women's choices and reinforces their reliance on male attendants or less qualified(16,18). A preference for female birth attendants' gender was more apparent in rural areas where limited access to healthcare facilities, and there were traditional birth attendants (3).

On the other hand, women who had previously delivered in healthcare facilities with varied choices may show additional varied preferences, mainly focusing on male attendants(28). Women who choose facility deliveries typically prefer female birth attendants, while those who choose home births might prefer male attendants which is influenced by traditional practice and cultural beliefs(18,29). Finally, in areas with limited access to well-equipped facilities, women prioritized the competence of the healthcare provider over gender preference, whereas, in settings where resources are more plentiful, women feel empowered to choose a provider based on gender preference, often to ensure comfort and cultural alignment(29).

2.4 Reasons Behind Pregnant Women's Preferences for Gender of Birth Attendants

Pregnant women's perceptions regarding their birth attendant gender were impacted by a variety of factors, cultural beliefs, individual norms, and societal norms. Several studies have insight into how these perceptions affect the maternal health care service.

The study conducted in northern Ghana showed that many women were open to male providers due to their cultural and societal norms, some expressed discomfort, particularly during intimate stages of labor, and personal beliefs, such as perceived women as better suited for caregiving roles in childbirth (30). A similar study conducted in rural Tanzania, on women's attitudes towards male birth attendants in maternal service was influenced by subjective norms, community expectations, and their control over healthcare decisions(31). Whereas some accept male birth attendants if they are competent, reflecting a tension between modern and traditional gender roles.

In another study conducted in South Africa on pregnant women's perception of student midwives, there were a mixed feeling about the involvement of males in delivery care by some

women, while others felt that they were uncomfortable with their presence which impacted women's comfort and trust(32). According to a study conducted in Nigeria, women in rural areas reported that trust, local customs, and emotional support were the main reasons for the preference for TBAs over modern healthcare providers, expressed women in rural areas chose TBAs other than gender (33). A similar study was carried out in Ghana some women preferred modern midwives irrespective of their gender which highlights the cultural perception about gender roles, whereas traditional midwives as more empathetic and familiar women preferred TBAs (2).

2.5 Conceptual Frameworks

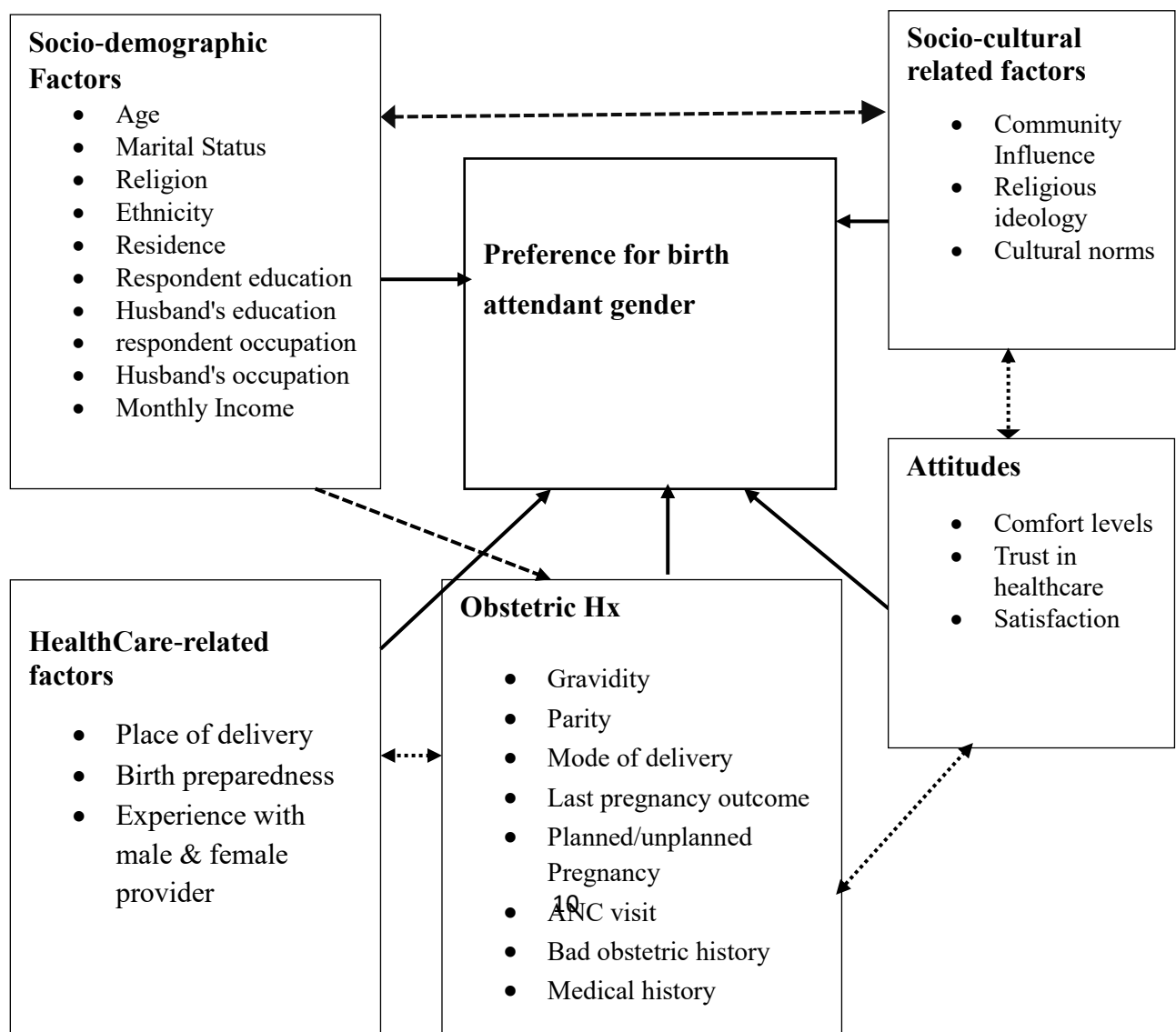


Figure 1: Frameworks developed by the author based on literature review(1,8,11,17,18,24).

3. OBJECTIVES OF THE STUDY

3.1 General Objective

- To assess the pregnant women's preferences for gender of birth attendants and associated factors among those attending Antenatal care clinics in Asella town public health facilities in Oromia, Ethiopia, 2024 G.C.

3.2 Specific Objectives

- To determine the prevalence of pregnant women's preferences for birth attendant gender in Asella Town public health facilities in Oromia, Ethiopia, 2024 G.C.
- To identify factors associated with pregnant women's preferences for gender of birth attendants in Asella Town public health facilities in Oromia, Ethiopia, 2024 G.C.
- To explore the underlying reasons for pregnant women's preferences for gender of birth attendants in Asella Town public health facilities in Oromia, Ethiopia, 2024 G.C.

4. METHODOLOGY

4.1 Study Design and Period

A concurrent mixed-method study design was conducted to triangulate the quantitative findings with the qualitative findings at Asella town public health facilities from October 1, 2024, to November 2024.

4.2 Study Area

The study was conducted in public health facilities in Asella Town. It was located in the Arsi Zone of central Ethiopia, approximately 164 kilometers southeast of Addis Ababa via the Addis-Adama expressway. This town has a latitude and longitude of 7°57'N 39°7'E / 7.950°N 39.117°E, with an elevation of 2,430 meters. Asella is categorized as having a subtropical highland climate monthly temperature variation is low, due to its elevation and closeness to the equator. The seasons are only distinguished by the rain intensity, which is highest in August and lowest in December. The city had a population of around 142,232 and an anticipated plan to serve 4,901 pregnant women. Asella had three government public health facilities one Teaching and Referral Hospital and two health centers.

4.3 Source and Study Population

4.3.1 Source Population

All pregnant women attended ANC clinics at public health facilities in Asella town during the study period.

4.3.2 Study Population

All the sampled pregnant women attending the ANC clinic during the data collection period were considered as the study population.

4.3.3 Study Unit

Each selected pregnant woman attending ANC in Asella Town Public Health Facilities

Inclusion criteria

All pregnant women over 18 years old at any trimester of pregnancy, attending antenatal care clinics at public health facilities in Asella Town, Oromia irrespective of their previous obstetric history for quantitative data, were involved in the study.

Exclusion criteria

Pregnant women with severe psychological distress affect their ability to participate, as well as those in emergency or urgent medical conditions. Primigravida women were excluded from the qualitative study to focus on women with previous birthing experience.

4.4 Sample Size and Sampling Procedure

4.4.1 Sample Size Determination

The sample size for the first objective was calculated using the single population proportion formula. The formula applied was $n = Z^2 * p * (1-p) / d^2$, where

n = represents the sample size,

Z= was the Z-value corresponding to a 95% confidence level (1.96).

P= was the estimated prevalence from a similar study conducted in Ambo Town (41.5%) (8).

d = was the margin of error, set at 5%.

The initial calculated sample size was 373. To account for potential participant dropout, a 10% non-response rate was included in the calculation, resulting in a final sample size of 410.

The sample size for the second objective was calculated from three factors of religion, education, and occupation from similar studies in Debre Markos.

Variables	Ref.	Non-Exposed groups(P1)	Exposed groups(P2)	OR	Sample size P1	Sample Size P2	Total sample
Religion: Muslim vs. Orthodox	(1)	Orthodox	Muslim	4.53	96	212	308
Education: Secondary vs. No Formal	(1)	No Formal Education	Secondary Education	4.00	130	106	236
Occupation: Private vs. Housewife	(1)	Housewife	Private Employee	6.39	50	130	180

However, the sample size calculated from the first objective was larger than the sample size of the second objective, the final sample size was 410 participants.

For the qualitative part, the sample size was determined using the principle of saturation, which indicates that no new concepts or themes emerged from the interview. Data were collected from 10 participants by in-depth interviews (IDIs). Throughout the data collection process, the data were analyzed after each interview to identify recurring themes or concepts. Saturation was determined by assessing whether additional interviews contributed new insights or information. As data collection and analysis progressed, the significance and depth of these themes were evaluated. Once the interviews began to repeat similar themes and no significant new information or perspectives arose, it was concluded that saturation had been reached, and data collection was stopped.

4.4.2 Sampling Procedure

The study included all public health facilities in Asella Town. Before a month of data collection started there was an estimated number of 1,753 pregnant women attending ANC at these public health facilities. A systematic random sampling technique was used to select participants. The sampling interval was determined by dividing the number of ANC attendants by the calculated sample size of 410 participants, which gave an interval of $Kth = N/n$ ($1753/410$) = 4. The data collection was conducted at all health facilities for every fourth pregnant woman attending ANC and the first participant was selected randomly from the numbers 1 to 4 until the anticipated sample size was reached (Figure 3).

For the qualitative parts of the study, participants were purposively selected from ANC attendants who could provide in-depth insights into their preferences. Factors affecting their choices of birth attendant gender were focused on willingness to participate in the study, with diversity in sociodemographic characteristics and multiparous women's relevance of their experiences to the study objectives considered essential for exploring the underlying reasons for their preferences of birth attendants.

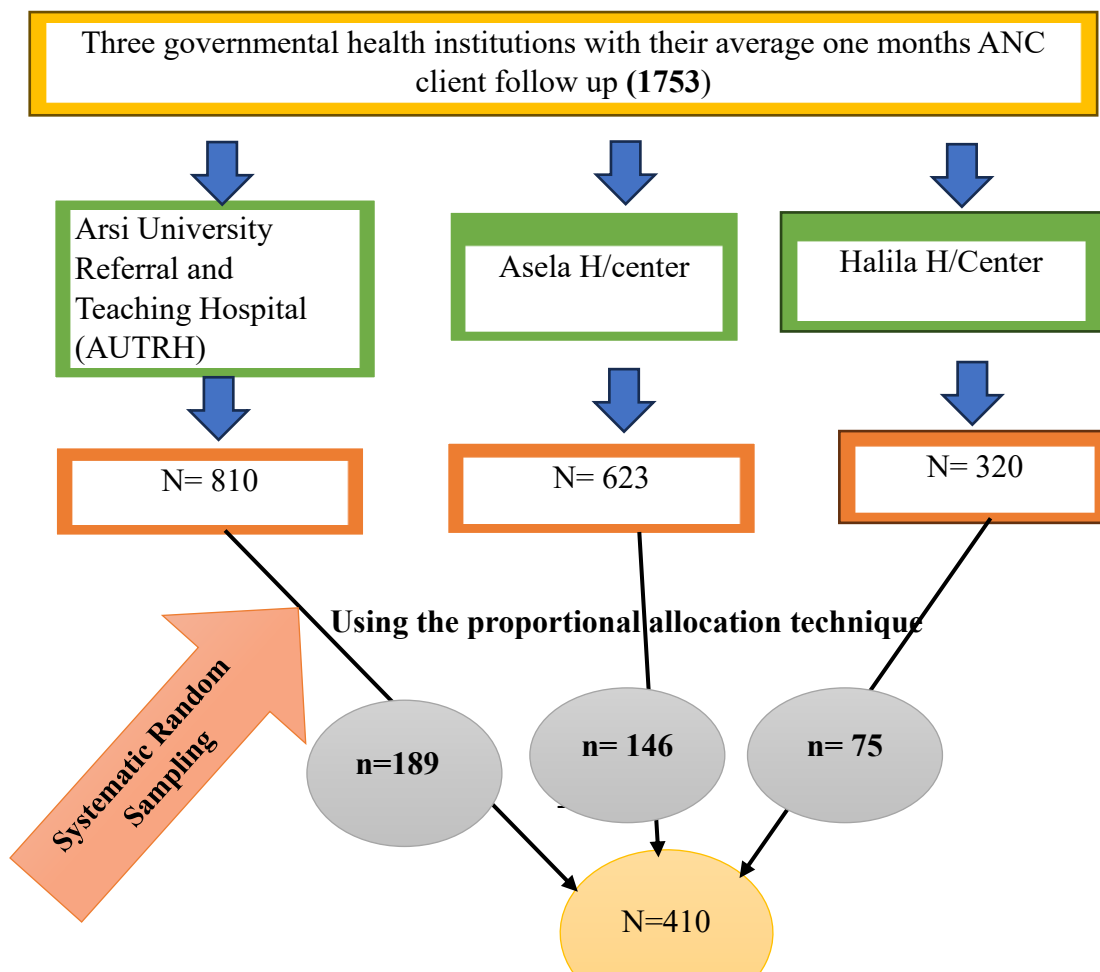


Figure 2: Schematic presentation of the sampling procedure for the study conducted on preference of birth attendant's gender and associated factors in Asella Town, Oromia, Ethiopia.

4.5 Study Variables

4.5.1 Dependent Variables

- Preference for birthing attendant gender

4.5.2 Independent Variables

➤ Socio-demographic Factors

- Age, Marital Status, Religion, Ethnicity, Residence
- Women's Education, Husband's education, respondent occupation, Husband's occupation, Income

➤ Obstetric History

- Gravidity
- Parity
- Mode of delivery
- Last pregnancy outcome
- Planed/unplanned pregnancy
- ANC visit
- Bad obstetric history
- Medical and surgical history

➤ Socio-cultural related factors

- Community Influence
- Religious ideology
- Cultural norms
- **HealthCare-related factors**
 - Place of delivery
 - Birth preparedness
 - Experience with male or female birth attendants
- **Attitudes**
 - Comfort levels
 - Trust in healthcare, and satisfaction during delivery

4.6 Operational Definitions

Birth attendant gender Preference: is a gender-based choice of a woman among health professionals; either male, female or no preference for birth attendance. Study participants were asked about which gender they prefer for birth attendants male, female, and no gender preference options were provided (9).

Gender: Refers to the social and cultural attributes, roles, and expectations associated with being male or female, as perceived by the participants(3).

Birth attendant: A qualified and licensed medical professional to practice or help in childbirth such as a midwife, nurse, or doctor(27).

Attitude: The perception of the pregnant women towards birth attendants' gender during delivery which was assessed by a Likert scale inquiry, measures the level of agreement or disagreement about comfort, trust, and perceived impact of their childbirth outcomes. Dichotomized by computing the six attitude-related questionnaires as a new variable, recoding the computed variable as (1=low, 2= High). Finally, the mean of recoded variables was analyzed from 30 total scores.

Low attitude: below mean of 15 indicating that respondents did not express a strong preference for the gender of their birth attendant.

High attitude: The above mean of 15 shows the degree to which the respondents were highly preferred for a specific gender of birth attendant.

4.7 Data Collection Procedure

To ensure high-quality and consistent data collection, training was given to three bachelor's degree holders in midwifery, on the study's goals, data collection tools, informed consent, and ethical procedures. A pre-test of the questionnaire was conducted to confirm the reliability and accuracy of the data collection process. For the quantitative a structured questionnaire, was developed in English from different literature sources (4,5) and translated into Afan Oromo and Amharic. A face-to-face interview was administered to every fourth pregnant woman attending the ANC clinic at each health facility until the target sample size of 410 participants was achieved. The field supervisor checked the daily activities conducted by the data collectors for the data quality process.

For qualitative data, purposive sampling was used to select study participants and to ensure a diverse range of sociodemographic characteristics and relevant experiences. To maintain the comfort and confidentiality of participants an interview guide was conducted at the individual level. The interviews were recorded and a field book was used to record non-verbal responses, background information, and observations made during the interview process. The interviews were audio-recorded and transcribed directly as spoken, finally translated to English, and carefully reviewed for accuracy and completeness before analysis.

4.8 Data Quality Assurance

Several data quality control measures were applied to ensure consistency, reliability, and trustworthiness. The 5% of the sampled data were assessed for consistency and reliability of the questionnaires at Bokoji Hospital. Data collectors received comprehensive training and regular refreshments, and field supervisors checked the data collection process, spot checks, and audits for accuracy, reliability, and validity.

The measures for ensuring data quality in qualitative research included numerous key practices. To establish credibility, interviewers experienced specialized training to maintain consistency and accuracy in data collection. For transferability, detailed descriptions of the study's context and participants were provided, and purposeful sampling was used to ensure a diverse participant pool, enhancing the applicability of the findings. To ensure dependability, an audit trail was kept, documenting the entire research process. Additionally, a code-recode procedure was utilized to verify consistency in data analysis.

Confirmability was achieved by cross-referencing findings with the original transcripts, which helped reduce researcher bias. Peer debriefing and reflexivity further promoted transparency in the research process. Other quality control measures included manual thematic analysis, validation checks during data entry, and data cleaning was conducted to maintain accuracy, coherence, and integrity throughout the study.

4.9 Data Processing and Analysis

Quantitative data were entered into Epi-Data version 4.7 and then exported to SPSS version 27 for analysis. Data cleaning addressed missing values, outliers, and inconsistencies. The outcome variable was categorized as female, male, and non-preference for birth attendant gender. For the multinomial logistic regression analysis, non-preference for birth attendant gender was used as the reference category, and missing data were handled appropriately, with imputation techniques. The socio-demographic characteristics and necessary variables of study findings were summarized using descriptive statistics, including the frequencies, percentages, means, and standard deviations. The study was analyzed using multinomial logistic regression to evaluate the association between the independent and outcome variables. All Variables with a p-value less than 0.25 at 95%:CI were included in the final model of multinomial logistic regression to control potential confounding variables. The variance inflation factor ($VIF < 10$) was used to

assess multicollinearity, and the model fit was evaluated by the likelihood ratio Test (LRT). Finally, the significant association was reported as an Adjusted odd ratio (AOR), with 95% CI, at $p\text{-value} < 0.05$.

Thematic analysis was used to evaluate the qualitative data; the interviews were transcribed verbatim, and translated into English. Coding of these data was conducted to create the themes and subthemes of the participant's perceptions and preferences related to their birth attendants' gender.

The investigator read and reread all the transcripts to obtain a full understanding of the ideas. An inductive process of thematic analysis was employed and the data were coded line by line. One MSC holder participated in coding the data. For problems or conflicts that occur during coding an agreement was clustered into meaningful groups to form categories and themes. Findings were presented in narrative summary, and structured tables to ensure a clear and comprehensive understanding. The final results were integrated with the quantitative results through triangulation to provide a comprehensive understanding of factors influencing women's preferences.

4.10 Ethical Consideration

The declaration of Helsinki's ethical principles was used when conducting the study, and from Arsi University Health Science College, the ethical clearance was attained from the Institutional Review Board (IRB), and the approval letter was taken on day 06/02/2017 E.C from the Asella Town Health Bureau (WFA/8015/9146). After written informed permission was acquired from each study participant, the study's purpose, risks, benefits, and right to a decision whether or not to participate in the study were addressed. All the information collected from the study participants was stored securely and kept confidential.

5. RESULT

5.1 Sociodemographic Characteristics of the Respondents

All 410 respondents participated in the study, resulting in a response rate of 100%. The socio-demographic characteristics of study participants indicate that the majority of participants were aged between 25 to 34 years, accounting for 207(50.5%) the group was often considered the ideal reproductive age range the mean age was 26.7 (SD $\pm$ 5.474). The majority of respondents 398(97.1%) were married, and 12(2.9%) were single. Most respondents were Orthodox 198(48.3%) followed by Muslim 161(39.3%). Ethnically 318(77.6%) were Oromo with a small group were Silte 10(2.4%). Related to their residence 349(85.1%) were residing in the urban area.

About 163(39.8%) of respondents had completed primary education, and 9(2.2%) reported having no formal education. While most of their husbands 183(45.2%) completed secondary education and 79(19.5%) attended primary education. The majority of respondents were housewives 249(60.7%), followed by private employees 54(13.2%), and 114(27.8%) of their husbands were government employees and 60(14.6%) were merchants. Regarding the family's monthly income, 250(61%) were in the low-income category and 43(10.5%) were in higher income family group (Table 1).

Table 1: Socio-demographic characteristics of respondents regarding the preference for the gender of birth attendants among pregnant women attending the antenatal clinic in Asella Town public health facilities in Oromia, Ethiopia 2024 (n=410)

Variables	Category	Frequency	Percentage
Age of respondents	18-24	155	37.8
	25-34	207	50.5
	35-44	48	11.7
	Total	410	100
Marital status	Single	12	2.9
	Married	398	97.1
	Total	410	100
Religion	orthodox	198	48.3
	Muslim	161	39.3
	protestant	51	12.4
	Total	410	100
Ethnicity	Oromo	318	77.6
	Amhara	64	15.6

	Gurage	18	4.4
	Silte	10	2.4
	Total	410	100
Residence	Urban	349	85.1
	Rural	61	14.9
	Total	410	100
Educational status	No formal education	9	2.2
	Primary education	163	39.8
	Secondary education	133	32.4
	Higher education (college/university)	105	25.6
	Total	410	100
Variables	Category	Frequency	Percentage
Husband's educational status	No formal education	5	1.2
	Primary education	79	19.5
	Secondary education	183	45.2
	Higher education (College/University)	138	34.1
	Total	405	100
Occupation	Housewife	249	60.7
	Merchant	43	10.5
	Government employee	49	12
	Private	54	13.2
	Others	15	3.6
	Total	410	100
Husband's occupation	Farmer	74	18.3
	Merchant	60	14.8
	Government employee	114	28.1
	Private	112	27.7
	Daily laborer	29	7.1
	Driver	16	4

	Total	405	100
Family's monthly income	Low income	250	61
	Middle income	117	28.5
	High income	43	10.5
	Total	410	100

The qualitative finding most participants were young, married women, and living in urban areas. The predominant were Muslim followers from the Oromo ethnic group. The educational level was half had primary education. Most of them were housewives, with a low monthly income category and two participants were in high income (Table 2).

Table 2: Summary of Sociodemographic Characteristics of In-Depth Interview Participants on Birth Attendants' Gender Preference Among Pregnant Women Attending Antennal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024 (N=10)

Variables	Category	Frequency
Age of respondents	25-29	6
	30-34	3
	>35	1
	Total	10
Marital status	Married	10
Religion	Orthodox	3
	Muslim	5
	Protestant	2
	Total	10
Ethnicity	Oromo	8
	Amhara	2
	Total	10
Residence	Urban	8
	Rural	2
	Total	10
Educational status	Primary education	5
	Secondary education	3
	Higher education (college/university	2
	Total	10
Occupation	Housewife	9

	Government employee	1
	Total	10
Family's monthly income	Low income	5
	Middle income	3
	High income	2
	Total	10

5.2 Obstetric history characteristics

The obstetric features of the respondents displayed a variety of experiences. Among all respondents, 131(32.0%) were primigravid, 75(18.3%) were grand multipara, and 151(36.8%) were nulliparous. About 131(32.0%) had given birth once, 52(12.7%) experienced more than three deliveries, and in their previous delivery 205(79.2%) had a spontaneous vaginal delivery (SVD). Despite their prior pregnancy fetal outcomes 256(98.8%) described no complications happening, while 3 (1.2%) experienced complications during their last delivery. The majority of 361 (88%) of respondents' current pregnancies were planned, and 49 (12%) were unplanned. Participants were interviewed about medical and obstetric conditions, urinary tract infections were the most common, affecting 35(67.4%) of the respondents and 68(62.9%) of them had complained history of miscarriage, and a small percentage experienced gestational diabetes and postpartum hemorrhage (Table 3).

The qualitative result shows that eight participants were multigravida, and two were grand multipara. In their parity, four were primipara women, and six were multiparous. In their pregnancy status, most participants' pregnancies were planned, and one of the participants had an unplanned pregnancy.

Table 3: Frequency Distribution of Obstetric and Medical history among pregnant women Attending Antennal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024

Variables	Category	Frequency	Percentage (%)
Gravidity	Primigravid	131	32
	Multi gravid	204	49.8
	Grand multipara	75	18.3
	Total	410	100
Parity	0	151	36.8
	1	131	32.0
	2	76	18.5
	>3	52	12.7
	Total	410	100
Last pregnancy mode of delivery(n=259)	SVD	205	79.2
	Others	54	20.8
	Total	259	100
last pregnancy fetal outcome(n=259)	No complication	256	98.8
	Complication	3	1.2
	Total	259	100
Was your current pregnancy planned?	Yes	361	88.0
	No	49	12.0
	Total	410	100
Do you have any of the following medical conditions? (n=52)	Diabetes	2	3.8
	Hypertension (high blood pressure)	4	7.7
	Thyroid disorders	5	9.6
	Mental health conditions	1	1.9

Do you have any of the following obstetric conditions? (n=108)	Urinary tract infections (UTIs)	35	67.4
	Chronic pelvic pain	5	9.6
	Total	52	100
	Previous traumatic birth	4	3.7
	Preeclampsia	7	6.5
	Gestational diabetes	2	1.9
	Antepartum hemorrhage	7	6.5
	Postpartum hemorrhage	2	1.9
	Multiple pregnancies	9	8.3
	History of miscarriages or stillbirths	68	62.9
	Female genital mutilation	9	8.3
	Total	108	100

The respondents were also interviewed about their current pregnancy ANC contact. Among participants 85(20.7%) attend four contact, 57(13.9%) were attend for the first time, and 39(9.5%) were attend eight contact (Figure3).

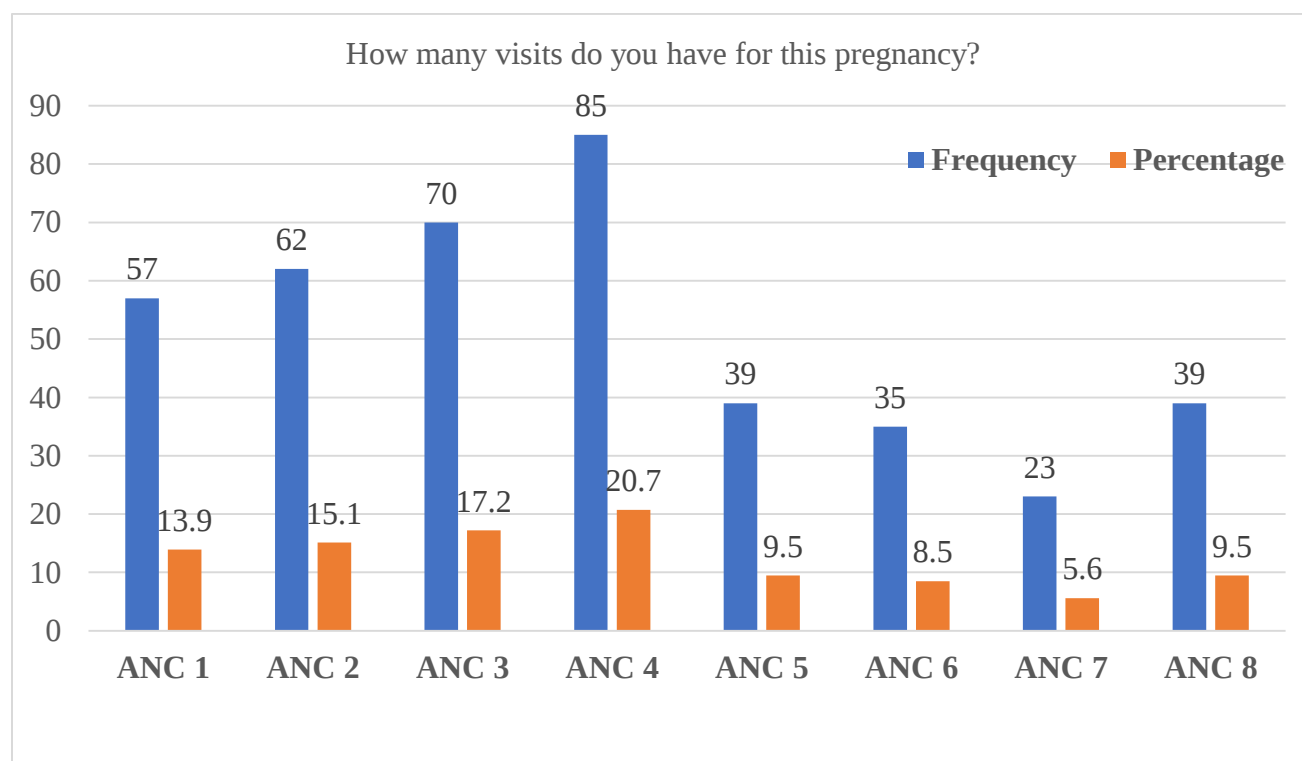


Figure 3: Distribution of Antenatal care Contacts among pregnant women Attending Antennal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024 (n=410)

5.3 Healthcare-related characteristics

The results showed constructive inclinations in maternal preparedness and readiness for childbirth particularly regarding delivery planning and institutional preference. Almost all respondents 407(99.3%) planned to deliver their offspring in public health facilities, and in their last pregnancy women 246(95%) had delivered in health facilities, whereas 13(5%) delivered at home. Related to their past childbirth experiences, 130(55.3%) of participants had experience with female birth attendants, and 105(44.7%) were attended by male providers. Hopefully, 402(98%) of women had already chosen a place of delivery for their current pregnancy, and 8(2%) had not made this decision yet. Similarly, about 319(77.8%) of respondents saved money for emergencies, and 292(71.2%) prepared essential items for a clean and safe delivery practice (Table 5).

Table 4: Healthcare-Related Factors on the Preference of Birth Attendants Gender Gender among pregnant women Attending Antennal Clinic in Asella Town Public Health Facilities, Oromia, Ethiopia 2024

Variables	Category	Frequency	Percentage (%)
Where do you plan to deliver your baby?	Home	1	0.2
	Public health facility	407	99.3
	Private health facility	2	0.5
	Total	410	100
Where were your previous deliveries conducted? (n= 259)	Home	13	5
	Health facility	246	95
	Total	262	100
Have you had previous experience with a male or female healthcare provider during childbirth? (n=235)	Yes, male provider	105	44.7
	Yes, female provider	130	55.3
	Total	235	100
Have you identified the place of delivery?	Yes	402	98
	No	8	2
	Total	410	100
Have you saved money for emergency expenses?	Yes	319	77.8
	No	91	22.2
	Total	410	100
Have you prepared essential items for clean and safe delivery?	Yes	292	71.2
	No	118	28.8

	Total	410	100
Have you identified the mode of transport?	Yes	290	70.7
	No	120	29.3
	Total	410	100

5.4 Magnitude of Birth Attendants Gender Preference

In a study of 410 respondents concerning their preference for the birth attendant, two hundred twenty-nine (55.8%, 95% CI: 0.507, 0.600) had no specific preference, one hundred six (25.9%, 95% CI: 0.220, 0.304) preferred male, and seventy-five (18.3%, CI: 0.147, 0.221) preferred female birth attendants (Figure4).

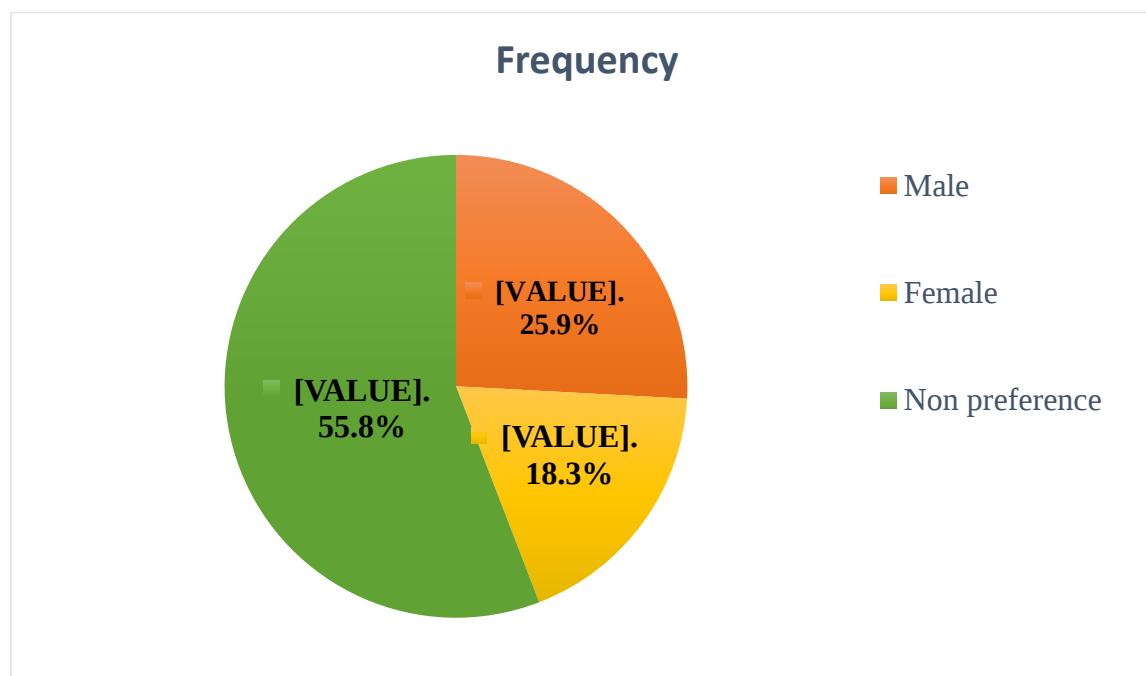


Figure 4. Magnitude on the Preference of Birth Attendants Gender among pregnant women Attending Antenatal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024 (n=410)

5.5 Qualitative Results for Birth Attendant Gender Preference

The qualitative data results of the participants were grouped into four major themes and other sub-themes emerged among participants.

5.5.1 Reasons for Gender Preference

The participants in this study expressed varying preferences and experiences regarding the gender of their birth attendants, some preferred either male or female attendants, while others had no gender preference at all.

Some participants preferred male birth attendants as they perceived males as more empathic, respectful, patient, and negative previous experience with female attendants influenced their choice quoted as:

P6 (25 years old) said *"Male attendants are more understanding, caring, and emphatic than female. The female who gave birth to me before was very abusive and insulting to me, so now I choose a male attendant."*

P8 (29 years old) said: *"I think males are more capable enough and emphatic than females. During my previous delivery, I was insulted by female birth attendants so I now choose a male."*

P9 (28 years old) said: *"The male is more emphatic and respectful but females are angrier and more impatient with me. The female attendant disrespected me and insulted me."*

Another participant chose female birth attendants who perceived a feeling of understanding and comfort by female attendants, and positive experience with female attendants during previous deliveries quoted as:

P2 (30 years old) said: *"I think female understands my problems easily and I feel very open and calm with them. The female who gave birth to me before my delivery told me to be strong. She said, 'I have a baby girl and I am a female and now you will give birth soon.'"*

The participants who had no preference for the birth attendant's gender stated that gender does not influence their choice, as they prioritize professional skills, safety, and equal treatment over gender.

P1: A 35-year-old woman said, *"I think that education given to both genders is equal, and women also provide the help that men provide. Both have served me equally before."*

P3: A 27-year-old said, *"I want a birth attendant with enough experience and skill to deliver me safely but I have no problem with the gender."*

P4: A 26-year-old said, *"I need a professional who would serve me in a good and equal manner without any discrimination."*

P5: A 32-year-old said, *"In my opinion, if both help in their ability to give birth to me, it is a good opportunity for me, but I do not distinguish between them by gender."*

P7: A 32-year-old said, *"I want to get a good service from birth attendants only and give birth safely."*

P10: A 26-year-old said, *"I don't choose their gender but I want to give birth safely because every professional with different skills helps each other give me a good birth outcome"*.

5.5.2 Experience and Emotional Impact

The previous delivery experience with male or female birth attendants significantly shaped preferences. Negative experiences with females lead participants to prefer male attendants and positive or neutral experiences with both genders felt more open to the same gender in their next choice quoted as:

P6 (25 years old) said: *"The female who gave birth to me before was very abusive and insulting to me, so now I choose a male attendant."*

P8 (29 years old) said: *"During my previous delivery, I was insulted by female birth attendants so I now choose a male."*

Some participants responded about the influence of birth attendant gender on their emotional comfort and trust during the childbirth process.

P2 (30 years old) said: *"Yes, it has an influence and I would be most comfortable if I gave birth with my preferred birth attendant."*

P6 (25 years old) said: *"Yes if I gave birth with an attendant of my choice sex, it would help me to feel calm and not worried during childbirth."*

P8 (29 years old) said: *"Yes, it influences me. I feel comfortable and calm if I give birth to my preferred attendant and I feel it was right."*

5.5.3 Skill over gender

Most participants were more prioritized in valuing good care and safe delivery over the gender of the birth attendant, and there was a perception that males were more empathic and patient.

P1 (35 years old) said: *"It does not affect my choice. As far as I can see, male and female midwives have not seen any difference in their skills."*

P3 (27 years old) said: *"I want a birth attendant with enough experience and skill to deliver me safely but I have no problem with the gender."*

P6 (25 years old) said: *"Male attendants are more understanding, caring, and emphatic than female."*

P8 (29 years old) said: *"I think males are more capable enough and emphatic than females."*

5.5.4 Socio-cultural and partner influence

Almost all participants stated that cultural or religious factors did not influence their choice, and there was limited discussion with partners about the preference for the gender of birth attendants. Some participants noted that their partner's preference aligns with their own.

A 30-year-old P2 said, *"I think cultural, and religious beliefs have nothing to do with my preference"*. P3 (27 years old): *"Culture and religion have nothing to do with my preference."*

A 35-year-old P1 said, *"I've discussed it with my husband. He has no choice"*

P9 28-year-old said, *"Yes, I discussed it with my husband, and he also prefers a male attendant"*.

Table 5: Themes and Sub-themes emerged related to preferences of birth attendant's Gender Among pregnant women Attending Antenatal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024 (n=10)

Themes	Subthemes	Key points
Gender preference Reasons	Reasons for preference of female birth attendant	Feeling understood and comforted by female attendants
		Positive experience with female attendants during previous deliveries
	Reasons for preference of male birth attendant	Perception of males as more emphatic, respectful, and patient.
		Negative experience with female attendants influencing choice
	Reasons for Non-preference of birth attendant gender	Equal competence and kindness were observed in both genders
		Prioritization of professional skills and safe delivery over gender
Experience and emotional impact	Personal experience	Negative interaction with female attendants influences male preference
		Positive or neutral experiences with both genders lead to no preference.
	Comfort and trust	Preference affects emotional comfort and confidence during childbirth.
Skill over gender	Professional competence and skills	Prioritizing good care and safe delivery over the gender of the attendant

	Perceived qualities of male vs. female attendants	Males are perceived as more emphatic and patient
Socio-cultural and partner influence	Cultural, Religious, and social beliefs	No impact of cultural or religious beliefs on gender preference
	Role of partner and family	Limited discussion with a partner about gender preference
		Partner agreement influencing preference.

5.6 Reason for The Preference of Female and Male Birth Attendants' Gender

The reason respondents prefer female birth attendants highlights a range of factors. The most common feeling female attendants were more comfortable, emphatic, and private during intimate procedures was 26(34.7%), 20(26.7%), and 9(12%) respectively (Figure 5).

Qualitative data also supported this, showing that respondents prefer female birth attendants because they feel a sense of comfort, understanding, and emotional connection with them.

P2: A 30-year-old woman said, *"I prefer a female because I think a woman understands my problems easily, and I feel very open and calm about them. I think the woman is very kind. The woman who gave birth to me before told me to be strong. She said, 'I have a baby girl, and I am also a female, and now you will give birth soon.'*

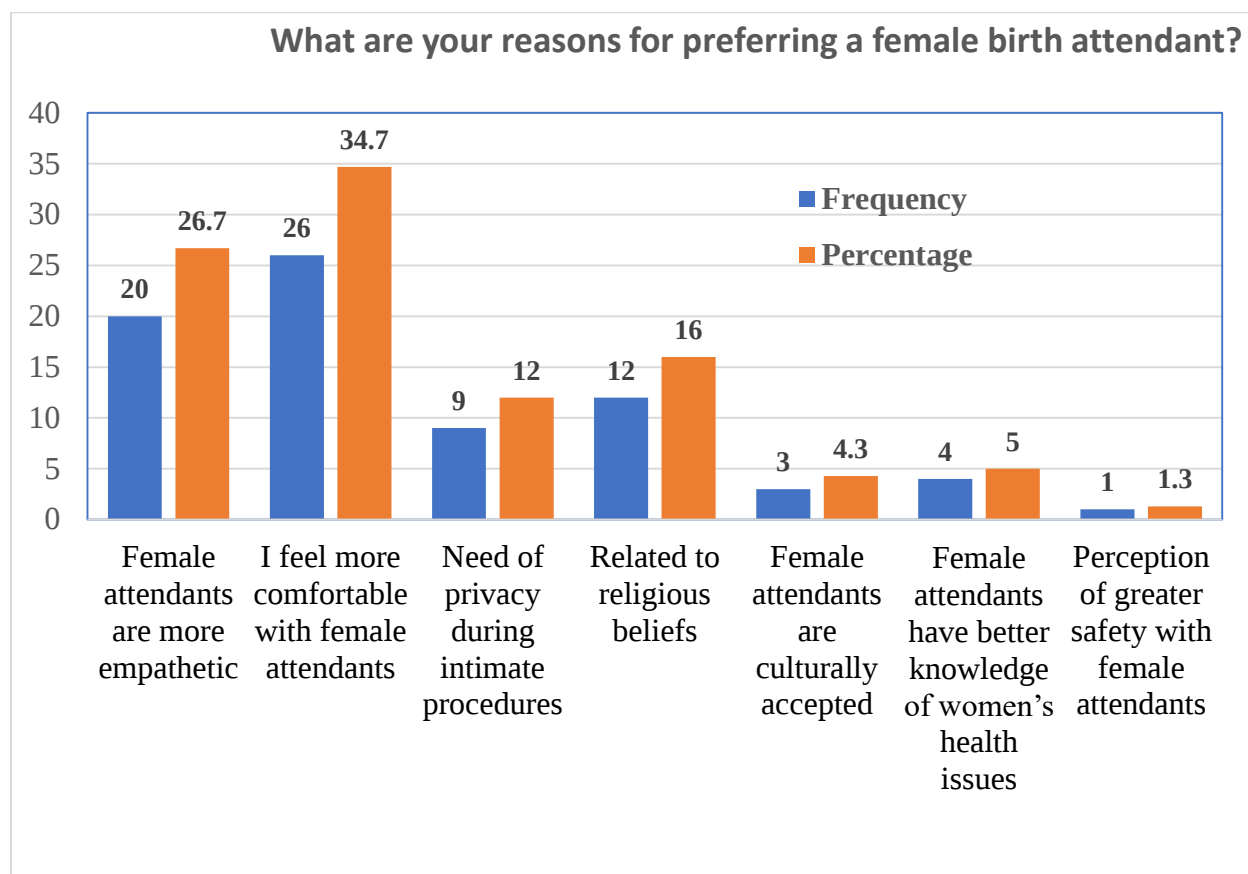


Figure 5. The reason for the preference of female birth attendants Gender among pregnant women Attending Antennal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024 (n=75)

Among those respondents who preferred male attendants, 68(64.2%) perceived as more emphatic, and 34(32.1%) felt more comfortable. A few numbers of respondents perceived the friendly atmosphere with male attendants and were more skillful than females (Figure 6).

The qualitative findings revealed an important insight, as to why some women preferred a male attendant. It was associated with male attendants as more comfortable, empathetic, and patient, especially when they had negative experiences with female attendants.

P6: A 25-year-old said, *“I have the best relationship with a male. Male attendants are more understanding, caring, and emphatic than women. When I gave birth before, the female who attended me was very abusive and insulting me, so now I choose a male attendant.”*

P8: A 28-year-old said, “In my opinion, men have good stability and are more comfortable than females, thus I prefer males. *During my previous delivery, a male attendant sat beside me, encouraged me to push strongly, and advised me to be strong. I think males are more capable and emphatic than females.*”

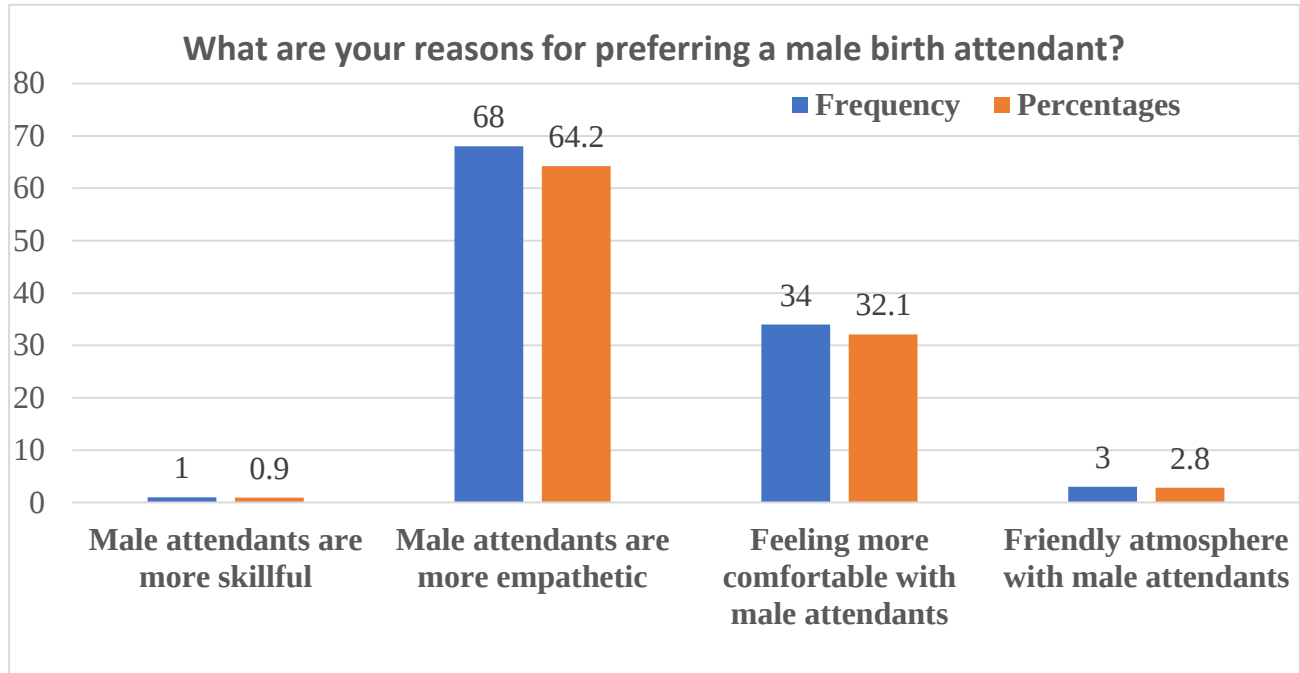


Figure 6. The reason for the preference of male birth attendants' gender among pregnant women Attending Antennal Clinic in Asella Town Public Health Facilities Oromia, Ethiopia 2024 (n=106)

5.7 Socio-cultural related factors

The participants were interviewed for factors that influence their preferences of the birth attendant gender, regarding community opinions, religious influences, cultural practices, and traditional practices, 404(98.5%) stated that socio-cultural factors did not influence their choice of birth attendant, and 6(1.5%) of the respondent's reported that socio-cultural factors influence their choice of birth attendant gender. This was also supported by qualitative data, which showed that all participants stated that cultural and religious beliefs did not affect their choice of birth attendant gender. A 30-year-old P2: said, "I think culture and religion have nothing to do with my preference."

5.8 Attitudes of Pregnant Women Toward the Preference for Gender of Birth Attendants

The study assessed pregnant women's preference for male and female birth attendants during their delivery practice, using a Likert scale to quantify their "Level of" comfort, trust, and

perceived delivery outcomes. These show that 232 participants (56.6%), had a low attitude toward the birth attendant gender preference, which shows that they did not prefer the specific birth attendant's gender. This was supported by qualitative data, with participants emphasizing comfort, equal treatment, and prior experiences regardless of gender.

P1: A 35-year-old said, *"I think that education given to both genders is equal, and women also provide the help that men provide. Both have served me equally before."*

P3 27 years old said, *"I want a birth attendant with enough experience and skill to deliver me safely but I have no problem with the gender."*

P5 32 years old shared, *"In my opinion, if both help me in their ability to give birth, it is a good opportunity for me, but I do not distinguish between them by gender."*

Among all respondents, 178 participants (43.4%) strongly preferred either male or female birth attendants. The participants with high attitudes reflect a strong preference for a specific gender of the birth attendant, supported by qualitative data, relating to comfort, experience, and perceived good care with male or female attendants.

P2: A 30-year-old said, *"I prefer a female attendant because, I think a female understands my problems easily and I feel very open and calm with them. During my previous delivery, I was very uncomfortable with a male attendant, which affected my current choice."*

P8 29 years old said, *"I think males are more capable enough and emphatic than females. During my previous delivery, a male attendant helped me by sitting beside me and he encouraged me to push and advised me to be strong enough."*

5.9 Factors Associated with Preference of Birth Attendants' Gender

The multinomial logistic regression analysis shows significant variables were associated with the preference of male and female birth attendants' gender. Urban residence was significantly associated with 3.41 times more likely to express male birth attendant preference compared to those residing in rural at (AOR: 3.411, 95% CI: 1.447-8.039). According to the qualitative data, women in urban residences preferred male birth attendants as they perceived stability and

patience during care. P9 (28 years old, urban resident said: *"I prefer male... The male attendant gave birth to me with good patience."*

Additionally, previous delivery experience with male birth attendants was 2.05 times more likely to express gender preference than those who did not deliver (AOR: 2.048, 95% CI: 1.185-3.537). This was supported by qualitative findings indicating that women with negative previous experience with female attendants had a strong preference for male attendants in future delivery. P6, a 25-year-old shared her experience: *"When I gave birth before, the female who gave birth to me was very abusive and insulting to me so now I choose a male attendant."* P9, a 28-year-old woman emphasized that the male attendants she had previously experienced were more patient and respectful: *"The male attendant gave birth to me with good patience."*

In another way, those with planned pregnancies were 52.5% less likely to express a preference for male attendants compared to unplanned pregnancies (AOR: 0.475, 95% CI: 0.229-0.986). This result aligned with the qualitative data that women with planned pregnancies were less express the gender of their birth attendant. P3 27 years old, with planned pregnancy, said: *"I want a birth attendant with enough experience and skill to deliver me safely but I have no problem with the gender."* P7 32 years 32-year-old planned pregnancy said: *"I want to get a good service from birth attendants only and give birth safely."*

Women with one and two previous deliveries were 3.39 times (AOR: 3.393, 95% CI: 1.298-8.870) and 3.54times (AOR: 3.541, 95% CI: 1.290-9.725) more likely to have a male gender preference compared to those with more than three or more deliveries. These findings were also supported by qualitative data women with few deliveries prefer the specific gender of birth attendants while some with multiple deliveries still prioritize kindness, and skill over gender.

P8 a 29-year-old, with gravida 2 para 1 said: *"I prefer male... In my opinion, men have good stability and are more comfortable than females thus I prefer males."* P4 26 years old, gravida 5 para 4 said: *"I need a professional who would serve me in a good and equal manner without any discrimination."* Finally, women with low attitudes were 92% less likely to express a male gender preference (AOR: 0.081, 95% CI: 0.045-0.145). This is further supported by qualitative data many women emphasized the importance of competent and skilled providers over gender.

P3, a 27-year-old said: *"I want a birth attendant with enough experience and skill to deliver me safely but I have no problem with the gender."*

For female birth attendant preference, women's residence and their attitudes towards birth attendant's gender were significant associations. Women living in urban areas were 2.49 more likely to express female birth attendants compared to those living in rural areas (AOR: 2.489, 95% CI: 1.040-5.957). this was supported by qualitative results showing urban women expressed more specific female birth attendants. One participant from Urban said: *"I prefer a female because I think a female understands my problems easily and I feel very open and calm with them"*. Similar to male preference, women with low attitudes were 94% less likely to prefer female birth attendants (AOR: 0.066, 95%CI: 0.034-0.127). This finding was also supported by qualitative results, most women strongly stressed the care they received, and others mentioned emotional or personal beliefs influenced their preference.

P3 said: *"I want a birth attendant with enough experience and skill to deliver me safely but I have no problem with the gender."* P4 said: *"I need a professional who would serve me in a good and equal manner without any discrimination."*

Catego	Variable	Preference
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		Male (%)	Female (%)	Non- prefer (%)			
male	Residence						
	Urban	99(93.4)	67(89.3)	183(79.9)	3.555(1.547-8.168)	3.411(1.447-8.039) *	0.005
	Rural	7(6.6)	8(10.7)	46(20.1)	1	1	
	Experience with						
	Male	43(40.5)	11(14.7)	51(22.2)	2.036(1.180-3.511)	2.048(1.185-3.537) *	0.010
	Female	22(20.7)	29(38.7)	79(34.4)	0.672(0.370-1.221)	0.665(0.366-1.253)	0.181
	No experience	41(38.8)	35(46.6)	99(43.4)	1	1	
	pregnancy						
	planned	89(83.9)	69(92)	203(88.6)	0.671(0.347-1.298)	0.475(0.229-0.986)	0.046
	Unplanned	17(16.1)	6(8)	26(11.4)	1	1	
	Parity						
	0	34(32)	34(45.3)	83(36.3)	2.458(0.949-6.368)	2.263(0.862-5.938)	0.097
	1 delivery	41(38.6)	19(25.3)	71(31)	3.465(1.345-8.922)	3.393(1.298-8.870) *	0.013
	2 deliveries	25(23.5)	12(16)	39(17)	3.846(1.416-10.450)	3.541(1.290-9.725) *	0.014
	>3 delivery	6(5.9)	10(13.4)	36(15.7)	1	1	
Female	Attitude						
	Low	28(26.5)	18(24)	186(81.2)	0.083(0.048-0.143)	0.081(0.045-0.145) **	<0.001
	High	78(73.5)	57(76)	43(18.8)	1	1	
	Residence						
	Urban	99(93.4)	67(89.3)	183(79.9)	2.105(0.945-4.6910)	2.489(1.040-5.957)	0.041
	Rural	7(6.6)	8(10.7)	46(20.1)	1		
	Experience with						
	Male	43(40.5)	11(14.7)	51(22.2)	0.610(0.286-1.301)	0.608(0.285-1.296)	0.198
	Female	22(20.7)	29(38.7)	79(34.4)	1.038(0.585-1.844)	1.046(0.589-1.858)	0.879
	No experience	41(38.8)	35(46.6)	99(43.4)	1	1	
	Attitude						
	Low	28(26.5)	18(24)	186(81.2)	0.073(0.039-0.136)	0.066(0.034-0.127) **	<0.001
	High	78(73.5)	57(76)	43(18.8)	1	1	
	Religion						
	Orthodox	56(52.8)	21(28)	121(52.9)	0.559(0.232-1.348)	0.543(0.222-1.325)	0.180
	Muslim	37(34.9)	45(60)	79(34.5)	1.835(0.798-4.220)	1.886(0.805-4.415)	0.144
	Protestant	13(12.3)	9(12)	29(12.6)	1	1	

Table 6: A Bivariate and Multinomial Logistic Regression factors for the birth attendants' gender among pregnant women attending the Antenatal clinic in Asella Town Public Health facilities Oromia, Ethiopia 2024 (Non-preference as reference category)

Key: 1= reference, **= p < 0.001 highly significant, * = p <0.05 significant

DISCUSSION

This study evaluated pregnant women's preferences for gender of birth attendants and influencing factors among pregnant women at public health facilities in Asella Town, Oromia, Ethiopia. The result showed a significant association between participants' residence, parity, previous experience, current planned or unplanned pregnancy condition, and attitudes of pregnant women towards the birth attendant gender.

In the study 106(25.9%) of women preferred a male birth attendant, 75(18.3%) preferred a female birth attendant, and 229(55.8%) had no preference. Compared to the study Ambo Town (23.7%), and Debre Markos (16.8%), preferred a male birth attendant, 34.8% in Ambo Town and 47.2% in Debre Markos were non-preference, and Asella Town had a higher preference for a male birth attendant and non-preference(1,8). Furthermore, while female attendants were preferred by a significant proportion of women in Ambo Town (41.5%) and Debre Markos (36%), our study found a lower preference for female attendants.

Associated factors with Male and female preferences

The multinomial logistic regression analysis showed that women who resided in urban were more likely to express for both male and female birth attendants during childbirth. Urban resident women were 3.41 times more likely to express a male birth attendant gender and 2.49 more likely to express female birth attendants compared to those residing in rural areas. This reflects that women in urban areas were pronounced to specific gender preferences compared to those who did not prefer birth attendant gender. This aligns with studies conducted in Ethiopia and other regions, which link urbanization, and higher education to increased exposure to better access to modern healthcare services which often included more interaction with male and female healthcare providers where a high level of skill and expertise, which reduced the discomfort some rural women may feel towards male birth attendants(2,8,20,24). This shows that urbanization is potentially driven by improved education, better healthcare access, and reduced adherence to traditional gender norms. In other studies in Nigeria and Bangladesh, rural residing women were more likely to prefer traditional birth attendants (TBAs), those who are trusted within the community and perceived as more agreed by women during their childbirth(25,29).

Among urban resident in-depth interview participants some preferred a male birth attendant and perceived that they were more patient, respectful, and understanding of their needs. P8, 29 years old shared her response as, *she feels that male attendants provide better support during childbirth, based on her previous experience where a male attendant encouraged and helped her feel calm and in control.*

Additionally, women with prior delivery experience with male birth attendants were 2.05 times more likely to prefer male birth attendants for their subsequent deliveries compared to women who did not have delivery experience. It suggests that women who experience positive childbirth practices with a male birth attendant tend to prefer them again in their next pregnancy. The qualitative data supported the finding that women with positive prior delivery experience with male birth attendants preferred male attendants in their next delivery.

P6, 25-year-old responded: *Her positive experience with male attendants in previous deliveries, describing male attendants as kind and emphatic led to prefer male attendants for future births. She feels calm and less worried when having a male attendant.*

Similarly, a 28-year-old P9 responded: *Positive experience with a male attendant influenced her preference for male attendants for her next deliveries, as she felt that male attendants were more emphatic and respectful compared to female attendants.*

From different studies in countries like Sweden, the Netherlands, and the United Kingdom due to many women expressing male midwives were more comfortable and preferred male providers for their deliveries after a prior positive interaction, male midwives were integrated into maternal healthcare services(25). The findings were aligned with studies in Ghana and Tanzania, showing that positive experiences with male healthcare providers as more skilled and competent were more likely to trust and seek them again in subsequent care(2,10). Different studies supported the finding as women with negative prior experience with female attendants prefer male attendants in their subsequent deliveries. This finding imitates the conclusions of studies in Sudan and Kenya, where unhappiness with the female birth attendants provoked women to choose male providers, who they viewed as more professionally competent, respectful, and judgmental in their approach to care (8,29). In similar studies in Debre Markos and Ambo Town Ethiopia, women who had positive experiences with male birth attendants were more likely to prefer them

again perceived as comfort and satisfaction(1,8). Finally, this finding significantly impacted the prior delivery experience shaping the women's future healthcare services.

Women with, current planned pregnancies were 52.5% less likely to express a preference for male attendants compared to unplanned pregnancies. suggesting that women with a planned pregnancy did not worry about their birth attendant gender, as prioritizing comfort, and emotional support over gender. The qualitative responses provide insights into how women with planned pregnancies often prioritize comfort and emotional support over gender.

P3, 27 years old explicitly stated that: *her main concern was the experience, skill, and overall ability of the birth attendant, and she noted that the primary goal was a safe delivery, focusing on ensuring the best possible care rather than the gender of the attendant.*

P10, 26 years old similarly responded that: *preferring the gender of the birth attendant was not important to her, as long as the attendant could help her with a safe delivery. She highlighted that both male and female attendants had the necessary skills.*

Studies in Ghana and Ethiopia support this finding that women with planned pregnancies were more focused on the quality of care they received over gender, and they placed more emphasis on empathy, communication skills, and competency of care(2,8). Other studies in Tanzania and Kenya revealed that women with unplanned pregnancies who experience anxiety, stressful conditions and need greater support, were more likely to prefer male attendants they perceived as competent and assertive(3,10). This finding was consistent with different studies that suggest women with planned pregnancy were more prepared for quality of care rather than the gender of care provider.

Women who had one previous delivery were 3.39 times more likely to express male birth attendant preferences and those with two previous deliveries were 3.54 times more likely to have gender preference compared to those with more than three or more deliveries. This suggests that women with fewer deliveries were more concerned about the birth attendant gender, as first-time mothers may feel more vulnerable and anxious about childbirth, than those with more deliveries. The qualitative result also explored that women with fewer deliveries had stronger gender preferences.

P8, 29 years old, with gravida II, para I, responded: *She expressed a preference for male attendants who were more stable and made her feel more comfortable during her previous childbirth experiences.* The in-depth interview also shows that women with multiple deliveries express no preference for the gender of the birth attendant. P1, 35-year-old Gravida IV, para III responds: *She noted that both male and female attendants had served her equally in the past, and this had no impact on her current choice.*

Several studies support this finding, in rural Bangladesh women with fewer deliveries were more likely to prefer male birth attendants, similarly, a study in Port Said, Egypt, Ghana, and Ethiopia Ambo Town found that women who experienced more deliveries feel a greater sense of autonomy in deciding on their care were less concerned about the gender of their birth attendant, and more focus on knowledge, skill, and experience(2,7,11). These findings were generalizing that women with fewer deliveries were more likely to express the birth attendant gender, and those with more deliveries did not express their birth attendant gender.

There was a significant association with the attitudes of pregnant toward the birth attendant's gender. women with low attitudes were 92% less likely to express a male gender preference and 94% less likely to prefer female birth attendants. This suggests that women with lower attitudes prioritize other aspects of care, such as competence and availability of skilled providers in the service area over gender. This significant association emphasizes the role of personal beliefs, perceptions, and attitudes influencing women's decisions. The qualitative participant's response highlights that women emphasize competence and availability of skilled professionals over gender. P1, 35 years old was explored: *She believes that both male and female attendants had equal training and capable of providing the same level of support. She values their ability to assist her regardless of gender.*

This concept aligns with the Health Belief Model, “which shows that women who perceive the advantages of receiving high-quality care from knowledgeable professionals may consider these benefits more important than any gender-related issues, particularly if they had negative or neutral experiences with gender preference”. In other studies in Ghana, Kenya, and Ethiopia women who perceived male attendants as more professional and reliable were more likely to

choose male attendants, and those who had a positive experience with specific birth attendants in their first pregnancy developed a more favorable attitude towards the same providers (2,3,19).

STRENGTH AND LIMITATIONS OF THE STUDY

Strength of the Study

- The mixed-methods study design nature of the study by triangulating the quantitative and qualitative data to understand the factors that impact pregnant women's preferences about the gender of the birth attendant.

Limitations of the study

- The findings were not generalized to other areas, and its cross-sectional design limits its ability to create causal relationships between the associated factors and outcome variables.
- Self-reported practice especially to the prior delivery experience may lead to recall bias.

CONCLUSION AND RECOMMENDATION

Conclusion

This study aimed to assess the preference for birth attendants' gender and the associated factors among pregnant women attending antenatal clinics in Asella Town public health facilities. The findings show that more than half of the participants had no specific gender, as they prioritize safe and good care over gender. However, many women prefer male attendants because they are perceived as more patient and emphatic, and some women prefer female birth attendants because they are perceived as emotional comfort and understanding.

Women's residence, parity, previous delivery experience with male and female attendants, current planned or unplanned pregnancy status, and attitude of women towards the birth attendant gender were significantly associated factors for their choice. Urban women were more likely to express both birth attendant gender preferences compared to those in rural areas, and those women with fewer deliveries were more likely to prefer a male gender, due to feelings of vulnerability and anxiety about their childbirth. Prior positive experiences with male birth attendants also shaped women to prefer male attendants in their next delivery. Several participants responded that they perceived competence, empathy, and emotional support given by male attendants to empower them to choose male attendants again.

Women with currently planned pregnancies were less likely to prefer a male birth attendant as they were more stressed and experienced anxiety about childbirth over gender. The participants' responses also highlight that they were more focused on the experience and skill of the birth attendants who they receive care during delivery. In other words, women with low attitudes toward the birth attendant gender did not express a preference for a specific birth attendant gender, as they were more focused on competence and availability of skilled birth attendants.

Recommendation

To Asella Town Public Health Administrators

They should implement community-based educational outreach campaigns on healthcare options focusing on health education for women about the benefits of skilled care, regardless of gender. This campaign addresses misunderstandings and encourages the acceptance of diverse healthcare attendants.

To AUTRH and Health Centers

Public healthcare facilities should focus on patient-centered, individualized care, focusing on gender-flexible staffing in maternal care and training on gender sensitivity to address the emotional and psychological needs of women.

To Health Worker

Healthcare professionals should prioritize building trust and creating positive experiences for all mothers. It's also essential for healthcare providers to practice non-discriminatory care, ensuring that every woman is treated fairly, regardless of her gender preference.

To Further Researcher

Further studies should be recommended to explore systemic factors that cover a wider area of studies, and longitudinal studies should be conducted to assess the long-term impact of women's preferences on maternal and neonatal health outcomes.

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ANNEX

Annex I: English Version Quantitative Questionnaire

A. Information sheet Quantitative Part

Good morning/Good afternoon. My name is _____ and I am a data collector for a study assessing the perceptions, preferences, and associated factors related to the gender of birth attendants among ANC attendants at public health facilities in Asella Town, Oromia, Ethiopia. This research is part of a Master's Degree research in Maternity and Reproductive Health Nursing conducted by Tefera Asres from Arsi University's Department of Midwifery.

The purpose of this study is to gain insights into the factors influencing women's preferences for the gender of their birth attendants. Your participation involves completing a questionnaire that will help us understand these factors better. Please be assured that your responses are completely confidential. Your name will not appear on the questionnaire, and your answers will be used solely for research purposes.

Participation in this study is entirely voluntary. You may choose not to answer any question you are uncomfortable with and withdraw from the study at any time without any negative consequences. The questionnaire is expected to take about 40 minutes to complete. While there are no direct benefits or payments for your participation, your honest responses are crucial for achieving the study's objectives.

If you have any questions or need more information, please contact Tefera Asres at 0910404297 or via email at tefeasres@gmail.com. Thank you for your time and cooperation. Do you understand everything that has been explained?

A. Consent Form for Quantitative Part

I undersigning this document, I am giving my consent to participate in the study conducted on “Perceptions, Preference and Associated Factors of Birth Attendants’ Gender Among Ante Natal Care Attendants at Public Health Facilities, In Asella Town, Oromia, Ethiopia 2024 G.C”. I have been informed that the purpose of this study is to assess the magnitude of Perceptions, Preference and Associated Factors of Birth Attendants’ gender among ANC attendants at public health facilities, in Asella Town. I understand that participation in this study is entirely voluntary. I have been told that my answers to the questions will not be given to anyone else by a third party. I have also been informed that my participation or non-participation or my refusal to answer questions will not affect me. I understood that participation in this study does not involve risks. I understood that **Tefera Asres (0910404297)** is the contact person if I have questions about the study or my rights as a study participant.

Participant Sign: _____

Date: _____

Name of Investigator: _____

Examiner Signature: _____

Date: _____

S. N	Question	Options	Remark
Part I: Socio-demographic characteristics			
100	What is your age?	_____ years	
101	What is your marital status?	1. Single 2. Married 3. Widowed	
102	What is your Religion?	1. Orthodox 2. Muslim 3. Protestant	
103	What is your Ethnicity:	1. Oromo 2. Amhara 3. Gurage 4. Silte	
104	Where is your residence?	1. Urban 2. Rural	
105	What is your educational status?	1. No formal education 2. Primary education 3. Secondary education 4. Higher education (college/university)	
106	What is your husband's educational status?	1. No formal education 2. Primary education 3. Secondary education 4. Higher education (college/university)	
107	What is your occupation?	1. Housewife 2. Farmer 3. Merchant 4. Government employee 5. private 6. Daily laborer 7. Student 8. Others specify____	
108	What is your husband's	1. Farmer	

	occupation?	2. Merchant 3. Government employee 4. Private 5. Daily laborer 6. driver 7. Others specify____	
109	What is your family's monthly income?	_____ ETB	

Part II: Obstetric hx-related questionnaire			
200	How many times have you become pregnant (Gravidity)?	1. 1 2. 2 3. 3-4 4. >5	For primi skip Q.202 and 203
201	How many times have you given birth (Birth occurred after 28 weeks of gestation, parity)?	1. 0 2. 1 3. 2 4. >3	
202	What is your last pregnancy mode of delivery?	1. SVD 2. Others (Assisted/ Instrumental and C/S) 3. No Delivery conducted	
203	What was the fetal outcome of your last delivery?	1. No complication 2. With complication 3. No previous delivery	
204	Was your current pregnancy planned?	1. Yes 2. No	
205	How many visits do you have for this pregnancy?	-----In numbers	
206	Do you have any of the following medical conditions? (Select all that apply)	1. Diabetes 2. Hypertension (high blood pressure) 3. Thyroid disorders 4. Mental health conditions 5. Urinary tract infections (UTIs) 6. Chronic pelvic pain 7. None of the above	
207	Do you have any of the following obstetric conditions? (Select all that apply):	1. Previous traumatic birth 2. Preeclampsia (high blood pressure during pregnancy)	

		3. Gestational diabetes 4. Antepartum hemorrhage 5. Postpartum hemorrhage 6. Multiple pregnancies 7. History of miscarriages or stillbirths 8. Female genital mutilation 9. None of the above	
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Part III: Socio-cultural related questionnaire

300	My community's opinion greatly influences my preference for the gender of my birth attendant.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
301	My religious beliefs influence my preference for a male or female birth attendant.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
302	Cultural norms in my community strongly influence my preference for the gender of my birth attendant.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
303	There are specific cultural practices or traditions in my community that order the gender of birth attendants.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	

Part IV: Health System-related questionnaires

400	Where were your previous deliveries conducted?	1. Home 2. Health Facility 3. No delivery conducted	
401	Where do you plan to deliver your baby?	1. Home 2. Public health facility 3. Private health facility	
403	Have you identified the place of delivery?	1. Yes	

		2. No	
404	Have you saved money for emergency expenses?	1. Yes 2. No	
405	Have you prepared essential items for clean and safe delivery?	1. Yes 2. No	
406	Have you identified the mode of transport?	1. Yes 2. No	

Part V: Preferences for birth attendant gender			
500	Have you had previous experience with a male or female healthcare provider during childbirth?	1. Yes, male provider 2. Yes, female provider 3. No	
501	What is your preference for the gender of your birth attendant?	1. Male 2. Female 3. No preference	
502	What are your reasons for preferring a female birth attendant? (Select all or more than one that apply)	1. Female attendants are more skillful 2. Female attendants are more empathetic 3. I feel more comfortable with female attendants 4. I need privacy during intimate procedures 5. Related to religious beliefs 6. Female attendants are culturally accepted 7. Female attendants have better knowledge of women's health issues 8. Female attendants have better communication skills 9. Perception of greater safety with female attendants 10. Female attendants are more courteous 11. None of the above	If your answer for Q. N. 501 is a female preference
503	What are your reasons for preferring a male birth attendant? (Select all or more than that apply)	1. Male attendants are more skillful 2. Male attendants are more empathetic 3. I feel more comfortable with male attendants 4. Friendly atmosphere with male attendants 5. Male attendants have better communication skills 6. Perception of greater safety with male attendants 7. None of the above	If your answer for Q. N. 501 is a male preference

Part VI: Attitudes of birth attendants-related questionnaires			
700	I am comfortable with a male birth attendant during delivery.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
701	I am comfortable with a female birth attendant during delivery.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
702	I agree that comfort with the gender of the birth attendant is crucial for a positive delivery experience.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
703	When choosing a birth attendant during delivery, trusting their gender is important.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
704	Attending by a preferred sex of skilled birth attendant leads to a positive birth outcome.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	
705	Attended by a preferred sex of skilled birth attendant promotes satisfaction.	1. Strongly Agree 2. Agree 3. Neutral 4. Disagree 5. Strongly Disagree	

Thank you for your participation

Annex II. English Version Qualitative Questionnaire

A. Information sheet

An in-depth interview on Perceptions, Preference, and Associated Factors of Birth Attendants' Gender Among Antenatal Care Attendants at Public Health Facilities in Asella Town, Oromia, Ethiopia, 2024 G.C.

The purpose of this study is to explore and understand the preferences and perceptions of pregnant women regarding the gender of their birth attendants at public health facilities in Asella Town. This study aims to identify the factors that influence these preferences and perceptions. If you agree to participate, you will be interviewed for approximately 20 minutes during which you will discuss your views, experiences, and preferences related to the gender of birth attendants during delivery. With your permission, the interview may be audio-recorded to ensure accuracy. Participation in this study is entirely voluntary, and you are free to decline or withdraw at any time without any consequences or loss of benefits. There are no known risks associated with participating in this study, and while there may be no direct benefit to you, your input could help improve the quality of care for women in the community. All information you provide will be kept strictly confidential, with your identity remaining anonymous in any reports or publications. Audio recordings will be securely stored and destroyed after data analysis is complete. You have the right to refuse participation or withdraw at any time without affecting the care you receive at the health facility. If you have questions or concerns, please contact **Tefera Asres at 0910404297**, Arsi University.

B. Consent for In-Depth Interview

I understand that I am being asked to participate in a research study titled "Perceptions, Preference, and Associated Factors of Birth Attendants' Gender Among Antenatal Care Attendants at Public Health Facilities in Asella Town, Oromia, Ethiopia, 2024 G.C." The purpose of this study is to explore my preferences and views regarding the gender of birth attendants during antenatal care. My participation will involve a short interview, which may be recorded with my permission. I understand that my participation is voluntary, and I may choose to withdraw at any time without affecting the care I receive. All information I provide will be kept confidential, and my identity will not be disclosed in any reports. If I have any questions, I can contact the researcher, Tefera Asres with the phone number 0910404297. By signing below, I indicate that I have read and understood this information and agree to participate in the study.

Participant's Signature: _____

Date: _____

Researcher's Name: _____

Researcher's Signature: _____

Date: _____

S. N	Question	Options	Remark
Part I: Socio-Demographic Characteristics			
800	What is your age?	_____ years	
801	What is your Marital Status?	1. Single 2. Married 3. Divorced 4. Widowed	
802	What is your Religion?	1. Orthodox 2. Muslim 3. Protestant	
803	What is your Ethnicity:	1. Oromo 2. Amhara 3. Tigray 4. Silte	
804	Where is your Residence?	1. Urban 2. Rural	
805	What is your educational status?	1. No formal education 2. Primary education 3. Secondary education	

		4. Higher education (college/university)	
806	What is your occupation?	1. Housewife 2. Governmental employee 3. Merchant 4. Others	
807	What is your family's monthly income?	_____ ETB	

S. N	Questions	options	Remark
Obstetric History-related questionnaire			
900	How many times have you been pregnant?	1. Primigravid 2. Prim parous 3. Grand multipara	
901	How many did you give birth to after 28 weeks of pregnancy?	1. Primiparous 2. Multiparous 3. Grand multiparous	
902	What was your current pregnancy status?	1. Planned 4. unplanned	

In-depth Interview Questionnaire

S.N	Question	Answers	Remark
100	What is the birth attendant gender preference for you?		
101	Can you describe the reasons behind your preference for a male birth attendant?		
102	Can you describe the reasons behind your preference for a female birth attendant?		
103	If you have no preference, what factors are most important in choosing a birth attendant, regardless of gender?		
104	How do cultural, religious, and personal beliefs shape your choice of birth attendant gender? Would you explain?		
105	How have your previous experiences with healthcare providers influenced your		

	preference for the gender of the birth attendant?		
106	What are your thoughts on the competence and empathy of male versus female birth attendants, based on your experiences or what you heard?		
107	How does the gender of a birth attendant influence your comfort and trust during childbirth?		
908	Have you discussed your preferences for a birth attendant's gender with your partner or family? What was their reaction?		

Declaration of Investigator

I, the undersigned student of Maternity and Reproductive Health Nursing, declare that this thesis work is my original work in partial fulfillment of the requirements for a master of science degree in maternity and reproductive health nursing to my knowledge.

Name of investigator: _____

Signature: _____ Date _____

Declaration of Advisors

To our knowledge, we, the undersigned advisors, declare that this thesis is our original work in partial fulfillment of the requirements for a master of science degree in maternity and reproductive health nursing for the stated student above. We confirmed that this thesis is ready for examination with our approval as the university advisors.

Name of primary Advisors:	Signatures	Date
_____	_____	_____

Name of secondary Advisors:	Signatures	Date
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_____	_____	_____
Department Head:	Signatures	Date
_____	_____	_____