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Intention To Use Vasectomy and Its Predictors Among Married Men Attending Reproductive Health Services at Public Health Facilities of Asella Town, Arsi Zone, Oromia, 2025.

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A Thesis to be submitted to Arsi University, College of Health Sciences, Department of Gynecology and Obstetrics in partial fulfillment for the requirement of specialization in Obstetrics and Gynecology.

Asella, Ethiopia

January 2026.

ARSI UNIVERSITY COLLEGE OF HEALTH SCIENCES DEPARTMENT
OF OBSTETRICS AND GYNECOLOGY

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Title of the research project	Intention to Use Vasectomy and Its Predictors Among Married Men Attending Reproductive Health Services at Public Health Facilities of Asella Town, Arsi Zone, Oromia, 2025: An Institution-Based Cross-Sectional Study
Duration of the project	6 months
Study area	Asella Teaching and Referral Hospital and Asella Health Center
Total cost of the project	28072 birr
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ACKNOWLEDGMENT

I would like to express my gratitude to Arsi University College of Health Sciences for the opportunity to conduct this research as part of my specialization in obstetrics and gynecology. I also appreciate the support from both the Department of Public Health and the Department of Obstetrics and Gynecology for allowing me to choose a clinically significant topic. I sincerely thank these departments for their assistance in developing this research proposal. Lastly, I am deeply thankful to my advisors, Dr. Adane and Dr. Gizachew, for their guidance in preparing this research proposal and their continual support and follow-up.

Abstract

Background: Vasectomy is a safe, simple, and highly effective method of permanent male contraception. Despite its benefits such as cost-effectiveness, minimal invasive nature, brief procedure duration (10 – 20 minutes), and fewer complications than female sterilization, it is still notably underused in low- and middle-income nations, including Ethiopia. Considering the inconsistencies present in the literature and clear knowledge gaps, it is essential to investigate the factors that affect men's intention to consider vasectomy to develop effective reproductive health strategies and encourage male participation in family planning.

Objective: To assess intention to use vasectomy and its predictors among married men attending reproductive health services at public health facilities of Asella Town, Oromia

Method: An institution based cross-sectional study design was employed to collect data from 267 married men attending at selected public health facilities of Asella Town. By using a simple random sampling technique, participants were selected, and data was collected using a structured questionnaire. It was entered into EPI data version 4.6 and then exported to Statistical Package for the Social Sciences version 25 for analysis. Bivariate regression analysis was done, and all variables with a p-value < 0.25 in the bivariate analysis was entered into the multivariable analysis. Finally, significance was set at a P-value < 0.05. The study achieved a 97.4% response rate, ensuring sampling adequacy.

Result: The magnitude of intention to use vasectomy among married men in this study was 24.2% (95% CI: 19.6–29.6). Factors significantly associated with intention to use vasectomy included urban residency (AOR = 2.56, 95% CI: 1.08–6.10), being employed as a daily laborer (AOR = 5.12, 95% CI: 1.01–25.94), and having good knowledge of vasectomy (AOR = 2.27, 95% CI: 0.98–5.25). Although the confidence interval for knowledge included 1.0, the variable approached statistical significance and warrants further exploration.

Conclusion and Recommendation: This study highlights a low intention to use vasectomy and identify key socio-demographic and knowledge-related factors influencing men's willingness. Public health interventions should focus on improving men's knowledge of Vasectomy, addressing misconceptions, promoting positive Attitudes, and targeting rural communities. Health education

and counseling programs involving both men and couples are critical to enhance vasectomy acceptance. Further research is recommended to explore cultural, behavioral, and health system barriers to male sterilization in Ethiopia.

ACRONYMS/ABBREVIATIONS

ARTH	Asella Referral and Teaching Hospital
CI	Confidence Intervals
EDHS	Ethiopian Demographic and Health Survey
ETB	Ethiopian Birr
FP	Family Planning
HC	Health Center
ICU	Intensive care unit
LMIC	Low and middle-income countries
OPD	Outpatient department

1 Introduction

1.1 Background

Family planning is widely recognized as one of the most cost-efficient strategies for significantly lowering maternal, infant, and child morbidity and mortality rates. Globally, the use of contraceptives has the potential to decrease maternal mortality by 44% (1). In addition to enhancing maternal and child health, family planning also plays a vital role in creating better opportunities for advancing socioeconomic status, education, and employment (1).

On a global scale, the utilization of contraceptive methods demonstrates significant variability, ranging from 69% in Southeast Asia to a mere 11% in Africa (4).

A vasectomy is a permanent male contraceptive method performed as an office surgical procedure done with local anesthesia and takes less than 20 minutes to complete. A small incision is made in the scrotum, and the lumen of the vas deferens is disrupted to block sperm traveling from the testes (2). The early failure rate is 0.2-5%, and the late failure rate is 0.04-0.08%. It has fewer side effects and complications than many methods for women (3).

In recent years, international health organizations have emphasized the critical role of male involvement in both the utilization and promotion of contraceptive methods, recognizing its importance in expanding contraceptive options for couples, particularly those that are male-centered, such as vasectomy (2).

Notwithstanding the increasing body of evidence supporting the inclusion of men in reproductive health decision-making, fertility rates and the unmet demand for family planning persist at elevated levels in numerous sub-Saharan African nations (5).

Worldwide, 19% of women in combination are sterilized through tubal ligation versus 2.4% of men. Men's use of vasectomy has markedly declined globally, to only 39% of what it was in 2001, even as overall contraceptive use has risen in most countries (6).

It's a safe and highly effective method of permanent contraception for men; however, its uptake remains notably low, especially in developing countries, largely due to limited knowledge, negative attitudes, widespread misconceptions, cultural and religious influences, and deep-rooted concerns regarding masculinity and sexual performance (7).

Almost all low- and middle-income countries (LMICs) report zero vasectomy prevalence. In 56 LMICs, no more than 1 in 1000 women rely on vasectomy (2). Among African countries, the highest reported rates are in South Africa (0.7%) and in Namibia (0.4%) (8).

Studies from high-income countries show that factors such as good knowledge, supportive attitudes, and shared decision-making in couples are highly associated with increased intention to use vasectomy (9).

A study conducted in Kiziranjumbi sub-county, Uganda, found that 46.6% of married men indicated a willingness to consider vasectomy. Their intention was significantly affected by their knowledge and cultural beliefs, which together explained 51.5% of the observed inclination towards choosing vasectomy (10).

In Ethiopia, a study published in the *Ethiopian Journal of Health Sciences* indicated that approximately 51.7% of participants had good knowledge regarding the procedure (11). Similarly, research conducted in Addis Ababa found that 34.8% of men possessed a good level of knowledge about vasectomy (6). In Arba Minch, 60.6% of men were reported to have good knowledge, and 48.4% exhibited a positive attitude toward vasectomy. Significant predictors of this attitude included age, education level, having a younger last child, and discussing family planning with their wives (12).

The first national vasectomy program was launched in 1954 in India (6). Despite its early introduction, uptake remains low in many countries due to various reasons, including, but not limited to, a lack of knowledge, limited access, misunderstandings, and myths. Programmatic attention to vasectomy and donor funding for it has been largely oriented to women and their contraceptives.

1.2 Statement of the problem

Globally, vasectomy uptake is high in high-income countries but remains extremely low in low-income settings (13). In Ethiopia, despite efforts to reduce maternal and infant mortality through family planning (FP), the total fertility rate remains high at 4.6, and the unmet need for FP is still 22% (14). In Ethiopia, male involvement is minimal: less than 1% of married men choose vasectomy, and only 0.1% actively engage in FP services (15).

Awareness and acceptance of vasectomy among Ethiopian men remain low; only 23.5% of married men have heard of the procedure, and in Addis Ababa, 63.2% were unaware of it as a family planning option (6, 15). Various studies have identified several factors influencing men's intention to use vasectomy, including age, education, religious beliefs, number of children, access to services, and spousal communication (6–8).

A study conducted in, Uganda, found that Cultural beliefs and misconceptions about vasectomy, such as its association with castration, negatively impact acceptance. Conversely, some men may resist vasectomy due to strong normative beliefs and misinformation, suggesting that overcoming these challenges is crucial for increasing adoption rates (10).

A study conducted in Debretabor revealed that the intention to opt for vasectomy among married men was 19.6%. This rate aligns with findings from four regions in Ethiopia, Amhara, Oromia, SNNP, and Tigray. Key predictors of this intention included being aged 30–39 years, having more than three children, possessing good knowledge about the procedure, and maintaining a positive attitude toward vasectomy. This underscores the necessity for enhanced awareness and educational efforts (8).

Despite these findings, no study has yet been conducted in the Arsi Zone, and inconsistencies in existing literature highlight the need for further investigation. Understanding the predictors of married men's intention to use vasectomy in this context is essential for designing targeted, culturally appropriate interventions that can enhance male involvement in FP.

1.3 Significance of the Study

Male involvement in family planning remains limited in Ethiopia, largely due to prevailing gender norms that place the responsibility for contraception primarily on women. This imbalance contributes to the persistently low utilization of male oriented contraceptive methods such as vasectomy, despite its safety and effectiveness. Understanding men's intention to use vasectomy is therefore essential for promoting shared responsibility in reproductive health and expanding the contraceptive method of mix.

Although some studies in Ethiopia have examined knowledge and attitudes toward vasectomy, evidence focusing on married men at the facility level remains limited, particularly in the Arsi Zone, Oromia Region. This study addresses this gap by providing context-specific evidence on the intention to use vasectomy and its predictors among married men attending reproductive health services at selected public health facilities Asella town. By identifying factors influencing men's intention to use vasectomy, the findings offer valuable insights for healthcare providers, program planners, and policymakers to design targeted, culturally appropriate interventions that enhance male engagement in family planning. Addressing identified knowledge gaps and sociocultural barriers may contribute to reducing unmet family planning needs and improving reproductive health outcomes in the study area, with implications for similar settings in Ethiopia.

2 Literature review

2.1 Prevalence of Intention to Use Vasectomy

Globally, vasectomy accounts for about 2.4% of contraceptive use among couples, with higher rates in countries like Canada (22%), New Zealand (19%), and South Korea (9%) (16).

A descriptive cross-sectional study carried out in Kiziranfumbi sub-county, Uganda, in 2023, involving a sample of 384 participants, revealed that 46.6% of married men expressed a willingness to consider undergoing a vasectomy (10). A cross-sectional study conducted involving 405 male married workers at a tertiary institution in Enugu State, Nigeria, revealed that approximately 20.7% of participants expressed a willingness to consider vasectomy as a contraceptive method (17).

A community-based cross-sectional study was conducted from February 1 to April 30, 2018, in Addis Ababa, involving a sample of 422 married men. The results showed that 24% of the participants expressed an intention to use vasectomy (6). A community-based cross-sectional study conducted among 402 married men in Debretabor from March 5 to April 15, 2019, found that the intention to choose vasectomy among these men was 19.6% (8).

2.2 Predictors of intention to use vasectomy

Knowledge about vasectomy

A cross-sectional study conducted in the United States aimed to evaluate the understanding of vasectomy among men aged 25 to 55 who did not plan to have additional children. The research utilized data gathered from a nationally representative online panel between May and June 2018, analyzing responses from 564 eligible participants. The findings indicated that only 51% of the respondents displayed a high level of knowledge regarding vasectomies (18).

A quantitative descriptive cross-sectional study conducted in Indonesia 2020 among 60 married men found that while 48.4% had high knowledge of vasectomy and 98.3% understood its definition, only 41.7% were aware of its effectiveness (19).

A descriptive study conducted in the rural areas of Kheda District, Gujarat, India, in 2023 gathered data from 100 married men. The results showed that most married men possessed insufficient knowledge (51%), while 48% had a moderate level of knowledge, and only 1% demonstrated

adequate knowledge (7).

A cross-sectional study carried out in Saudi Arabia from July to September 2021 involving 243 participants found that merely 13% were knowledgeable about vasectomy as a form of male contraception (20).

A cross-sectional study involving 624 participants was conducted Otuke District between January to April 2023 In Uganda, 50.2% of respondents demonstrated knowledge of how vasectomy functions (21).

This research was conducted as a descriptive and analytical cross-sectional study in the Rubavu district of Rwanda on March 31, 2022. A total of 360 couples were involved as study participants. The findings indicated that 97 participants (26.90%) had a poor understanding of vasectomy, while 263 participants (73.10%) demonstrated a good level of knowledge regarding the procedure (22).

A descriptive cross-sectional study conducted in 2021 among married men in the urban slums of Chennai, India, found that approximately 84% of participants were aware of vasectomy, but only 37% considered it a viable male contraceptive option. Furthermore, 70% believed that vasectomy could help prevent sexually transmitted diseases/infections (STD/STI). Only 25% indicated that they viewed vasectomy as a more effective sterilization method compared to tubectomy (23).

A cross-sectional study was carried out in Addis Ababa between February 1 and April 30, 2018, involving a sample of 422 married men. Among the participants, 34.8% had knowledge scores above the mean, indicating they had good knowledge (6) .

Attitude towards vasectomy

A study conducted in the rural areas of Kheda District, Gujarat, India, in 2023 gathered data from 100 married men. found that 57% showed a favorable attitude, 42% had a moderately favorable attitude, and just 1% held an unfavorable attitude, indicating a more positive outlook despite limited comprehensive knowledge (7).

A study conducted among married men in the urban slums of Chennai, India. 2021 Only 13% of men strongly agreed, and 32% of them have strongly disagreed that they should undergo

vasectomy, 27% strongly disagreed that vasectomy is a right choice for couples who have completed their family (23).

A study conducted in Birendra Nagar Municipality, Surkhet district, revealed a contrasting perspective, where 86.5% of married men with at least one child exhibited a positive attitude towards vasectomy, while only 13.5% held negative views, suggesting that localized awareness initiatives may contribute to more favorable attitudes in certain communities (24).

A study was conducted in Addis Ababa 2018 about 23.2% of the respondents scored greater than or equal to the mean which was categorized as a positive attitude towards the use of vasectomy (6).

A community-based cross-sectional study conducted in Arba Minch town between May 2 and June 2, 2021, involving 624 participants, found that only 48.4% of the respondents had a positive attitude towards vasectomy (12).

A community-focused cross-sectional study was carried out from December 5 to 25, 2019. Out of 413 married men who took part, 62.7% exhibited a negative perspective on vasectomy, while only 37.3% showed a positive view, underscoring ongoing attitudinal obstacles despite continuous public health initiatives (25).

Sociocultural/religious influences

A study in India (2021) included 132 participants. The mean age was 34 years. Among study participants, most of them were from the age group of 20–29 and 30–39, whereas 40.90 and 30.30%, respectively (23).

Age is a significant determinant, with men aged 30-39 years showing higher intentions to use vasectomy in both Debre Tabor Town and Addis Ababa (6, 8).

Educational level also influences vasectomy acceptance. To explore this, a scoping of existing literature on vasectomy in Nigeria between 2009 to 2021 was conducted. The review focused on qualitative studies and grey literature. In Nigeria, higher educational attainment was associated with better knowledge and willingness to accept vasectomy (26).

A community based cross sectional study was conducted in Dangila town. 2017 indicated that among men who had heard of vasectomy, approximately 27% had completed higher secondary education and 26.5% had completed a diploma. This suggests a correlation between higher

educational attainment and knowledge about vasectomy (27).

Religion significantly influenced knowledge and attitudes toward vasectomy. Men with Protestant affiliation were three times more likely to view vasectomy as against their religious beliefs, while misconceptions about sexual ability were prevalent among Catholics and less educated men (28).

Additionally, cultural beliefs impacted attitudes towards vasectomy, with 53.9% of participants identifying as Catholics, potentially affecting their acceptance of this family planning method (10).

The study found that knowledge significantly influenced the intention of opting for vasectomy ($P = 0.011$). Additionally, 82.6% of participants were engaged in peasant farming, indicating a potential association between occupation and attitudes towards vasectomy adoption (10). The couples with employed husbands and ones who were doing agriculture were more likely to have knowledge towards vasectomy [$AOR = 2.162$; 95% $CI = 1.097 - 4.260$; $P = 0.02$] and [$AOR = 3.152$; 95% $CI = 1.221 - 8.134$; $P = 0.01$] respectively compared to couples living with business man (22).

A study in Rwanda the couples with 4-6 range number of children were more likely to have knowledge towards vasectomy [$AOR = 1.573$; 95% $CI = 0.921 - 2.688$; $P = 0.02$] compared to couples with 0 to 3 range number of children (22). Similarly in Addis Ababa Participants who had more than three living children were 2.5 times more likely to intend to use vasectomy compared to those with three or fewer children, indicating that family size influences the intention to adopt this contraceptive method (8).

A cross-sectional study involving 624 participants was conducted Otuke District between January to April 2023 in Uganda, Cultural beliefs and misconceptions about vasectomy can hinder its acceptance. In Kikuube District, Uganda, 2023 cultural beliefs were a significant barrier, with 45.8% citing cultural influences on their decision (21).

A study carried among married men in India, 2021 the social stigma associated with vasectomy is one of the most significant barriers. The Vasectomy procedure may cause the community to mistreat, according to nearly 75% of the respondents. Females prefer to have tubectomy procedures, according to nearly 73 percent of the respondents. Religious and cultural barriers were cited by only 31% of respondents as reasons for Vasectomy refusal (23).

A community-based cross-sectional study was conducted from February 1 – April 30, 2018. Addis Ababa More than 3/4th (76.1%) of the respondents wouldn't accept vasectomy as a family planning method. Their major reasons for refusal of vasectomy as family planning method were

included cultural/religious beliefs (34.7%) (6).

Health system related factors

Awareness of vasectomy was primarily sourced from health workers (32.6%), indicating the importance of healthcare professionals in disseminating information (10). However, misconceptions about vasectomy's effects on sexual function and its association with castration persist, suggesting a need for improved health education. Addressing these misconceptions through targeted awareness campaigns can enhance men's understanding and acceptance of vasectomy as a family planning method (10).

While these factors highlight the potential for increasing vasectomy utilization through education and attitude change, challenges remain. Misconceptions about vasectomy, such as its impact on sexual function, persist in many communities. Addressing these misconceptions through targeted health education and involving men in family planning discussions could enhance vasectomy acceptance and utilization (11).

Most of the studies in Ethiopia have been community-based studies and mainly focused on general male populations. There is a lack of facility-based evidence targeting married men attending healthcare services, who are easily reachable and more receptive to health education messages.

2.3 Conceptual framework

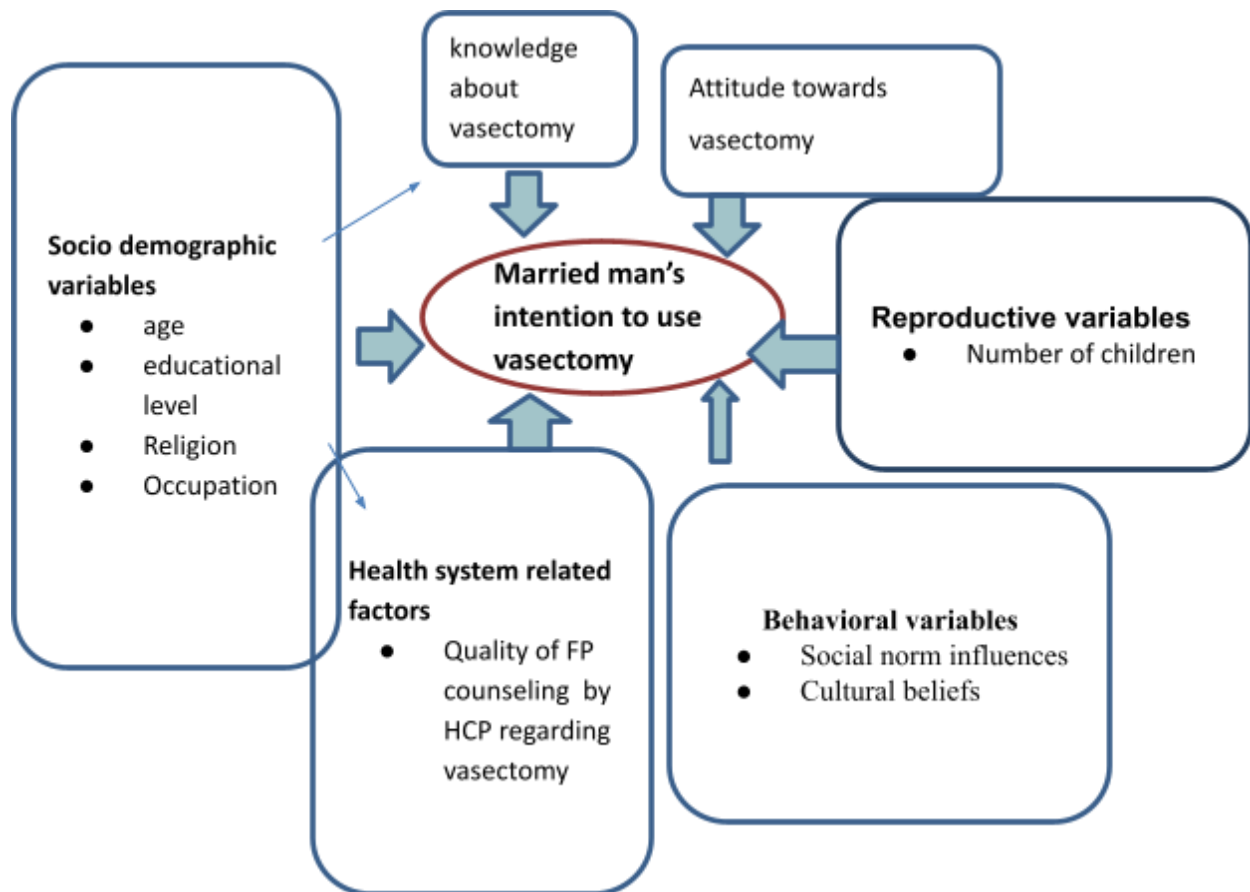


Figure 1 conceptual framework after reviewing several literatures (6, 8).

3 Objectives

3.1 General objective

To assess intention to use vasectomy and its predictors among married men attending reproductive health services at public health facilities of Asella Town, Oromia, 2025.

3.2 Specific objectives

- To determine the prevalence of intention to use vasectomy among married men attending reproductive health services at public health facilities of Asella Town.
- To assess the level of knowledge and attitude toward vasectomy among married men attending reproductive health services at public health facilities of Asella Town.
- To identify associated factors with the intention to use vasectomy among married men attending reproductive health services at public health facilities of Asella Town.

4 Methods and materials

4.1 Study area

The study was conducted in public health facilities in Asella town, Arsi zone, Ethiopia. Asella is the capital town of West Arsi Zone located 175 km from Addis Ababa. According to the information obtained from the town's statistics office report, the total population of the town was 74,268 of whom female accounted for 37,431(50.4%), with household of 15,473. For administrative purposes, the town was divided into 7 administrative units (kebele) called Chilalo,

Welkesa, Hanku, Hunde gudina, Burkitu, Kenbolcha and Halila. In the town there are 1 teaching public hospital with 4 health centers, 2 government health centers, and 2 private hospitals. Asella Teaching and Referral Hospital is the only referral hospital in the Arsi zone, with a catchment area of 3.5 million people. The hospital has around 310 beds distributed in four major inpatient departments (internal medicine, surgery, gyn/obs, and pediatrics). It also has an adult ICU and a general emergency OPD. It also has a reproductive health unit with one OPD dedicated to family planning services, two gyn OPD for abortion care service and two OPD for ANC follow up service.

4.2 Study design and period

A facility-based cross-sectional study was conducted to assess the intention to use vasectomy and selected associated factors among married men attending reproductive health services at Asella Teaching and Referral Hospital (ATRH) and Asella Health Center, East Arsi Zone, Oromia Region, Ethiopia. From September to December 2025.

4.3 Source population

All married men who attend health facilities for reproductive health services.

4.4 Study population

Married men who either accompany their pregnant wives for ANC follow-up or visit for family planning services at ARTH, and Asella HC during the study period.

4.5 Eligibility criteria

4.5.1 Inclusion Criteria

Married men aged 18 years and above.

Present at the facility for either ANC or family planning services.

Willing to participate and provide informed consent.

4.5.2 Exclusion Criteria

The study excluded men who refused to consent and who have previously undergone vasectomy.

4.6 Sample Size Determination

The sample size (n) for the first objective was calculated using the following single population proportion formula.

$$n = \frac{z(a)^2 p(1-p)}{d^2}$$

Where n= Desired sample size Z $\alpha/2$ = Standard (1.96)

p = prevalence of intention to use vasectomy among married men based on a previous study conducted in Debre Tabor Town, which reported a 19.6%

d= Margin of error = 5% = 0.05

Therefore n=243

The sample size for the second objective was calculated by taking more frequently observed predictors for intention to use vasectomy using epi info StatCalc function.

Predictor	A O R	Non-Exposed (%)	Exposed (%)	Required Sample Size
Good knowledge	2.5	15	30	~220
Positive attitude	3.0	12	33	~180
Age group 30–39	2.8	10	28	~200
≥3 children	2.6	14	32	~210
Spousal communication	3.2	13	35	~170

So as to address both specific objectives of the study, we take the higher sample size. Thus, the sample size for this study was 243.

By considering 10% non-responsive rate, the final sample size is 267.

4.7 Sampling technique

Health facilities were selected purposefully and stratified by the facility. The total sample size was allocated proportionally to the selected health facilities based on the average monthly load of ANC follow up and family planning service. For ARTH, average monthly ANC follow up, and family

planning service is 960, 440 for Asella HC. The specific sample size for each health facility was 183 and 84 respectively. Within each facility, systematic random sampling was used to select every kth eligible married man attending either ANC or family planning services during the study period. Although ANC attendance reflects pregnant women rather than their accompanying husbands, it was used as a proxy under the assumption that husband accompaniment rates are relatively consistent across both facilities. Family planning clients were included in the same sampling frame to enhance representativeness.

4.8 Study variables

Dependent variable

Married men's intention to use vasectomy

Independent variables

- ✓ Socio-demographic variables
- ✓ Age
- ✓ Educational level
- ✓ Religion
- ✓ Occupation
- ✓ Knowledge about vasectomy
- ✓ Attitude towards vasectomy
- ✓ Reproductive variables
- ✓ Number of children
- ✓ Health system-related factors
- ✓ Quality of FP counseling by healthcare provider regarding vasectomy
- ✓ Behavioral variables
- ✓ Social norm influences
- ✓ Cultural beliefs

4.9 Data collection tool and procedure

A structured, questionnaire-based, face-to-face interview was used to collect data. It was originally prepared in English and translated to Afan Oromo for the purpose of data collection. Finally, it was translated back into English to check for consistency and accuracy. The questionnaires were developed based on a thorough review of literature from similar and related studies, focusing on variables associated with socio-demographic characteristics (age, education, occupation, residence, etc.), knowledge and attitude toward vasectomy, reproductive history and family planning experience, intention to use vasectomy, and associated factors (6,8). Data was collected by residents and midwives from married men who come to ARTH and Asella HC and are willing to give information.

Training was provided to data collectors and supervisors for one day, covering the aim of the study, ensuring confidentiality, understanding the tool, and interview techniques as training elements. The trained data collector and supervisor were first informing the objective and benefit of the study, participants' rights, the time the interview takes, and confidentiality, and obtaining informed consent from respondents before the interview starts.

4.10 Data quality assurance

The quality of data was controlled starting from the time of questionnaire preparations. The questionnaire was developed by reviewing relevant literature on the subject to ensure reliability. First, the questionnaire prepared in English was translated to Afan Oromo. To ensure consistency of the tool, it was translated back to English. The trained collectors of data were minimizing the errors and collecting the data carefully.

Before the actual data collection, the questionnaire was pretested on 5% of study participants to determine the clarity and understandability of the data collection instrument. Pretesting samples were taken from the Halila health center selected by convenience nonprobability sampling.

The collected data was checked out for completeness, accuracy, and clarity by the principal investigator and supervisor. This quality checking was done daily after data collection, and

corrections were made before the next data collection measure. Data cleanup and cross-checking were done before analysis.

4.11 Data processing and analysis

Data were entered using Kobo Toolbox and exported to SPSS version 25 for statistical analysis. Data cleaning, coding, and verification were performed prior to analysis. Descriptive statistics, including frequencies, percentages, means, and standard deviations, were used to summarize the characteristics of study participants. Results were presented using text, tables, and figures.. To test the association between the independent and the outcome variable, bivariate and multivariable logistic regression analysis was done. All variables at a p-value ≤ 0.25 in bivariate analysis were entered into multivariable analysis to identify the independent association of variables of intention to use vasectomy. Finally, significant independent associations were declared at a P-value of <0.05 and AOR with 95% CI to measure the strength of association. The regression model fitness was checked using Hosmer-Lemeshow model fitness test and has good fitted ($X^2 = 8.186$, $df=8$, $p=0.416$). Multicollinearity was checked by variance inflation factor ($VIF <5$). Finally, the results of the study were presented using tables, figures, and texts based on the data obtained.

4.12 Operational definitions

Intention to use vasectomy: it refers to potential men who answered “yes” to the inquiry “Was you acknowledge vasectomy as a technique for FP later on?” Information about the meaning of vasectomy was quickly given to respondents that had never caught wind of it, so they could show whether they expected to utilize it or not.

Knowledge: it refers to the understanding and awareness of married men regarding vasectomy. Knowledge about vasectomy was assessed using a structured questionnaire adapted from previous studies conducted in Ethiopia (Addis Ababa, Arba Minch). Items covered the definition of vasectomy, its effectiveness, the procedure, possible side effects, and common misconceptions. Each correct response was scored as “1,” while incorrect or “don’t know” responses were scored as “0.” A composite knowledge score was generated by summing all items. Respondents who scored greater than or equal to the mean value of the total knowledge score were categorized as having **good knowledge**, while those who scored below the mean were categorized as having **poor knowledge**. This cut-off approach is consistent with Ethiopian studies, where 34.8%–60.6% of

men were classified as having good knowledge of vasectomy [6, 12].

Attitude: a predisposition or a tendency to respond positively or negatively towards vasectomy. It refers to the opinions and feelings of married men regarding vasectomy. Their attitudes were measured using 6 items adapted from previous Ethiopian studies conducted in Arba Minch and Debretabor. Each statement assessed perceptions of vasectomy in terms of safety, effectiveness, cultural and religious acceptability, and willingness to use or recommend the method. Responses were recorded on a three-point scale: **Agree (scored as 2), Neutral (scored as 1), and Disagree (scored as 0)**. A composite attitude score was calculated by summing across all items. Respondents who scored **greater than or equal to the mean value** of the total attitude score were categorized as having a **positive attitude**, while those who scored **below the mean value** were categorized as having a **negative attitude**. This scoring and categorization approach is consistent with facility- and community-based studies in Ethiopia, such as those conducted in Arba Minch and Debretabor, where approximately 23%–48% of men demonstrated positive attitudes toward vasectomy. rated on a three-point Likert scale as agreeing, neutral, or disagreeing. Men who scored above the mean on the attitude items were perceived to have a positive attitude, while those who scored below the mean were perceived to have a negative attitude (6, 8).

4.13 Ethical consideration

Before data collection, ethical clearance was obtained from the Arsi University Research Ethical Review Committee, and an official letter was written for each selected facilities for their permission to conduct the study in their institution and for their possible cooperation and participation. Informed written consent was obtained from each study subject prior to the data collection process, after the purpose of the study had been explained and they had been briefed about the confidentiality of their responses and the importance of providing the right information to help the study achieve its objective. The confidentiality of personal information was strictly preserved. To ensure confidentiality, the name and other identifiers of the patients were not registered. Moreover, the study subjects remained anonymous during and after publication.

4.14 Dissemination of results

The final result of this study will be presented and submitted to Arsi University, College of Health

Science. A formal presentation will be made to Arsi University College of Health Science.

Additionally, the finding of the research will be presented on different seminar, conferences, and workshops and finally publication will be attempted on internationally reputable scientific Journals.

5 Result

5.1 Socio-Demographic of Participants

A total of 260 study participants were included in the analysis, yielding a response rate of 97.4% from the expected sample size of 267. The mean age of the respondents was 41.29 years (standard deviation ± 7.45).

The majority of respondents were Oromo by ethnicity (50.0%), while Tigray constituted the smallest group (0.4%). Most participants resided in urban areas (58.1%). Islam was the most common religion (38.5%), whereas Catholicism was the least reported (8.5%). Regarding educational status of study participants, college-level education or above was most frequent among respondents (42.3%), while inability to read and write was least common (11.9%). Private business was the predominant occupation among respondents (43.8%), while civil service was the least common (7.7%).

Table 1: Socio demographic characteristics of study participant

Variable	Categories	Frequency	Percent
Ethnicity	Amharic	89	34.2
	Gurage	10	3.8
	Oromo	130	50
	Other	31	11.9
Place of residency	Rural	109	41.9
	Urban	151	58.1
Your religion	Catholic	22	8.5
	Muslim	100	38.5
	Orthodox	71	27.3
	Protestant	67	25.8
Your education status	Collage and above	110	42.3
	Primary education	46	17.7
	Read and write only	39	15
	Secondary	34	13.1
	Un able to read and write	31	11.9
Wife educational	Collage and above	65	25
	Primary education	47	18.1
	Read and write only	58	22.3
	Secondary education	47	18.1
	Unable to read and write	43	16.5
Your occupation	Civil servant	20	7.7
	Daily laborer	24	9.2
	employed in private sector	73	28.1
	Other	29	11.2
	Private business	114	43.8
Wife occupation	Civil servant	32	12.3
	Employed in private sector	62	23.8
	House wife	107	41.2
	Other	16	6.2

Private business	43	16.5
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5.2 Reproductive health related factors

Regarding marital duration, respondents reported having lived with their wives for an average of 12.17 years, with a standard deviation of 5.35 years. Regarding the number of male children, 16 (6.2%) of respondents reported having no male child, 47 (18.1%) had one, and 113 (43.5%) had two male children. Three sons were reported by 53 (20.4%) participants, four sons by 17 (6.5%), five sons by 10 (3.8%), and six sons by 4 (1.5%) of the respondents. Regarding the number of female children, 58 (22.3%) respondents reported having no female child, 85 (32.7%) had one, and 69 (26.5%) had two female children. Three daughters were reported by 37 (14.2%) participants, four by 7 (2.7%), and five and six daughters were reported by 2 (0.8%) respondents.

Table 2: Reproductive health related intention to use vasectomy and its predictors among married men attending reproductive health services

Variable	Categories	Frequency	Percent
Discuss about FP with your partner	No	94	36.2
	Yes	166	63.8
Emotional support from your partner to use FP	No	118	45.4
	Yes	142	54.6
Complete your family size	No	106	40.8
	Yes	154	59.2
If farther desire number of children	Male	87	33.5
	Female	88	33.8

5.3 Knowledge related to vasectomy

Regarding awareness and knowledge of vasectomy, 158 (60.8%) respondents had heard about vasectomy. However, more than half did not know that vasectomy is a permanent or irreversible method (55.4%) and that it requires a minor surgical procedure (67.7%). The majority of

participants were unaware that seminal fluid is still present after vasectomy (78.1%) and did not know how vasectomy works (78.8%). Additionally, most respondents were unaware that vasectomy services are available in Ethiopia (81.2%) and did not know where vasectomy is performed (81.9%). Furthermore, 173 (66.5%) participants reported that they had not heard who can use vasectomy.

Regarding eligibility for vasectomy, 84 (32.3%) respondents reported that vasectomy can be used by married men who have completed their family size, while only 3 (1.2%) indicated that it can be used by any married man of reproductive age.

Table 3: Knowledge related to intention to use vasectomy and its predictors among married men attending reproductive health services

Variable	Categories	Frequency	Percent
Heard about vasectomy	No	102	39.2
	Yes	158	60.8
Vasectomy is permanent or irreversible	No	144	55.4
	Yes	116	44.6
Vasectomy requires minor surgery procedure	No	176	67.7
	Yes	84	32.3
Seminal fluid present after vasectomy	No	203	78.1
	Yes	57	21.9
Do you know how vasectomy works	No	205	78.8
	Yes	55	21.2
Vasectomy works in Ethiopia	No	211	81.2
	Yes	49	18.8
Do you know where Vasectomy performed	No	213	81.9
	Yes	47	18.1
Heard that who can use vasectomy	No	173	66.5
	Yes	87	33.5

5.4 Attitude related to vasectomy

Regarding attitudes toward family planning and vasectomy, 157 (60.4%) respondents disagreed

that family planning is solely the responsibility of women, while 70 (26.9%) agreed. Concerning negative beliefs about vasectomy, 122 (46.9%) disagreed that vasectomy has negative implications, whereas 79 (30.4%) agreed. With respect to perceived side effects, 114 (43.8%) agreed that vasectomy has side effects, while 90 (34.6%) disagreed. Nearly half of the respondents disagreed that pregnancy could occur after vasectomy (122, 46.9%), while 74 (28.5%) agreed. Regarding misconceptions, 99 (38.1%) agreed that vasectomy is similar to castration, whereas 95 (36.5%) disagreed. Finally, 136 (52.3%) respondents disagreed that vasectomy could cause physical weakness, while 64 (24.6%) agreed.

Table 4: Attitude related to intention to use vasectomy and its predictors among married men attending reproductive health services

Variable	Categories	Frequency	Percent
Family planning is responsible of women	Agree	70	26.9
	Disagree	157	60.4
	Neutral	33	12.7
Do believe that vasectomy negativity	Agree	79	30.4
	Disagree	122	46.9
	Neutral	59	22.7
Vasectomy has side effects	Agree	114	43.8
	Disagree	90	34.6
	Neutral	56	21.5
Pregnancy can happen after vasectomy	Agree	74	28.5
	Disagree	122	46.9
	Neutral	64	24.6
Vasectomy is similar to castration	Agree	99	38.1
	Disagree	95	36.5
	Neutral	66	25.4
Vasectomy can cause physical weaknesses	Agree	64	24.6
	Disagree	136	52.3
	Neutral	60	23.1

Overall, 221 (85.0%) respondents had poor knowledge about vasectomy, while only 39 (15.0%)

demonstrated good knowledge. In addition, the majority of participants exhibited a negative attitude toward vasectomy (185, 71.2%), whereas fewer than one-third had a positive attitude (75, 28.8%). These distributions indicate that limited knowledge and unfavorable attitudes toward vasectomy were common among the study participants.

Overall Knowledge and Attitude

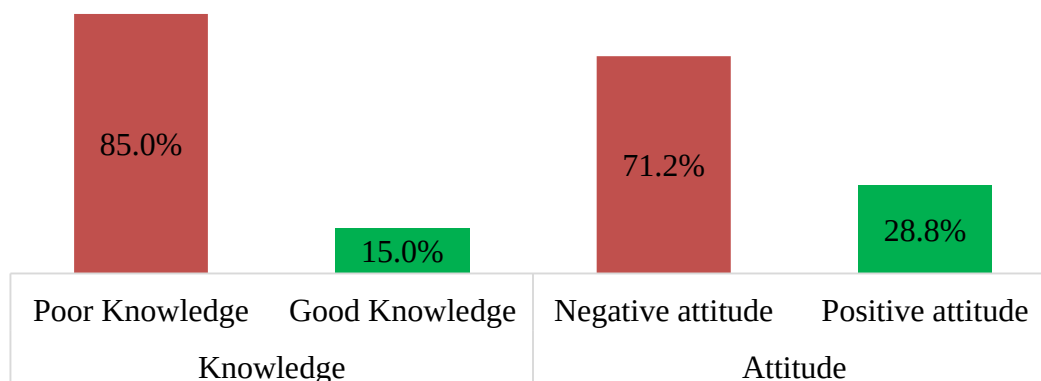


Figure 2: Overall Knowledge and Attitude related to intention to use vasectomy and its predictors among married men attending reproductive health services

5.5 Factor associated with intention to use vasectomy

All socio-demographic, Reproductive health related factors, knowledge related factor, and attitude related factors variables were entered into Bi-variable logistic regression. Those associated variables at $p\text{-value} \leq 0.25$ were found as candidates for the multivariable logistic regression model.

Among the candidate variables included in the multivariable logistic regression model, three of them (Residence, Occupation and Knowledge) were statistically significant with willingness to vasectomy.

Urban residency was significantly associated with intention to use vasectomy, with urban men being more likely to intend to use the method than rural men (AOR = 2.56; 95% CI: 1.08–6.10). Occupational status also showed a significant association; men employed as daily laborers had higher odds of intending to use vasectomy compared to men in other occupations (AOR = 5.12; 95% CI: 1.01–25.94). Additionally, participants with good knowledge of vasectomy were more likely to intend to use the method than those with poor knowledge (AOR = 2.27; 95% CI: 0.98–

5.25).

Table 5: Factor associated with intention to use vasectomy among married men attending reproductive health services

Variable	Categories	Intention to Vasectomy		COR	AOR
		No	Yes		
Residency	Rural	98	11	1	1
	Urban	99	52	4.68 (2.31–9.50)	2.56 (1.08–6.10) *
Wife educational level	Collage and above	38	27	1	1
	Primary education	38	9	0.33 (0.14–0.80)	0.68 (0.24–1.91)
	Read and write only	49	9	0.26 (0.11–0.61)	0.56 (0.21–1.55)
	Secondary education	34	13	0.54 (0.24–1.21)	0.66 (0.27–1.64)
	Unable to read and write	38	5	0.19 (0.06–0.53)	0.55 (0.14–2.14)
Occupation	Civil servant	15	5	1	1
	Daily laborer	17	7	1.24 (0.32–4.72)	5.12 (1.01–25.94) *
	employed in private sector	47	26	1.66 (0.54–5.09)	3.26 (0.89–11.87)
	Private business	89	25	0.84 (0.28–2.55)	1.71 (0.49–5.93)
Wife occupation	Civil servant	19	13	1	1
	Employed in private sector	45	17	0.55 (0.23–1.36)	0.39 (0.14–1.11)
	House wife	88	19	0.32 (0.13–0.75)	0.49 (0.17–1.42)
	Private business	29	14	0.71 (0.27–1.83)	0.84 (0.28–2.48)
Knowledge	Poor Knowledge	178	43	1	1
	Good Knowledge	19	20	4.36 (2.14–8.87)	2.27 (0.98–5.25) *

Attitude	Negative attitude	129	56	1	1
	Positive attitude	68	7	0.24 (0.10–0.55)	0.47 (0.19–1.20)

6 Discussion

In this study, the overall intention to use vasectomy among married men was **24.2% (95% CI: 19.6–29.6)**. This prevalence demonstrates a relatively low level of willingness, though it is consistent with community-based studies conducted in Ethiopia, such as Addis Ababa (24%) and Debretabor (19.6%) (6,8). These similarities suggest that across different Ethiopian settings, men’s intention to adopt vasectomy remains limited.

Comparable findings have also been reported outside Ethiopia, including 20.7% in Enugu State, Nigeria (17). However, the prevalence observed in our study is considerably lower than the 46.6% reported in Kiziranfumbi sub-county, Uganda (10). Such differences may reflect variations in cultural norms, the strength of health education programs, and accessibility of reproductive health services across regions.

At the global level, vasectomy continues to be underutilized, accounting for only 2.4% of contraceptive use among couples. This contrasts sharply with much higher uptake in countries such as Canada (22%), New Zealand (19%), and South Korea (9%) (16). The disparity highlights the influence of sociocultural acceptance, health system prioritization, and policy support in shaping men’s reproductive health choices.

In this study, knowledge of vasectomy showed a positive trend toward predicting intention, although it did not reach conventional statistical significance (AOR = 2.27; 95% CI: 0.98–5.25). Men with higher knowledge were more likely to report willingness to use vasectomy compared to those with poor knowledge, a pattern consistent with findings from Rwanda, Uganda, India, and Ethiopia (6,7,12,21,22). For example, in Addis Ababa, men with good knowledge were 2.5 times more likely to intend vasectomy use (6), while in Arba Minch, 60.6% of knowledgeable men demonstrated significantly higher intention (12). Globally, high-income countries such as Canada and the United States illustrate how widespread awareness contributes to substantially higher vasectomy uptake (16,18).

Although 60.8% of participants in this study had heard of vasectomy, persistent misconceptions about its permanence, surgical procedure, and effects on sexual function were common. Similar myths — particularly associations with castration and sexual dysfunction — have been documented in other low- and middle-income countries, limiting acceptance. These findings suggest that while knowledge alone may not guarantee intention, accurate information plays a critical role in reducing fear, countering myths about masculinity and sexual performance, and empowering men to make informed reproductive health decisions.

Therefore, targeted educational interventions that address misconceptions and highlight the safety and effectiveness of vasectomy remain essential. Even though the association in this study was not statistically significant, the consistent evidence across diverse contexts underscores knowledge as a foundational determinant of male involvement in family planning in Ethiopia and other low-resource settings.

Urban residency was another significant factor in this study, with urban men being 2.56 times more likely to intend to use vasectomy compared to rural residents (AOR = 2.56; 95% CI: 1.08–6.10). This finding is consistent with other Ethiopian and African studies. In Debre Tabor, urban residents had about twice the odds of intending vasectomy compared to rural men, attributed to better access to family planning services and information (8). Similarly, in Addis Ababa, urban men were 2.5 times more likely to intend vasectomy than rural counterparts, reflecting higher knowledge and exposure to health education campaigns (6). Evidence from Uganda also showed that urban men had more than twice the odds of intending vasectomy compared to rural men, explained by greater media exposure and service availability (21).

The alignment across these studies highlights that urban residency consistently predicts higher intention to use vasectomy. The justification lies in the fact that urban men are more frequently exposed to health education campaigns, have greater access to healthcare facilities, and are more likely to encounter family planning messages through media and community programs. In contrast, rural men often face barriers such as limited-service availability, cultural resistance, and lower exposure to accurate information. Therefore, while urban residency facilitates knowledge and acceptance, targeted interventions are needed in rural areas to bridge these gaps and ensure equitable male involvement in family planning.

Attitudes toward vasectomy were predominantly negative, with only 28.8% of participants expressing a positive attitude. These results are consistent with studies from Arba Minch and Chennai, India, where cultural beliefs, social stigma, and misinformation hindered acceptance of vasectomy (12,23,25). Misconceptions such as equating vasectomy with castration, fear of physical weakness, and concerns about side effects were widespread. Addressing these attitudinal barriers through behavior change communication and community-based awareness programs is critical to improving acceptance.

In this study, men employed as daily laborers were significantly more likely to intend vasectomy compared to other occupations (AOR = 5.12; 95% CI: 1.01–25.94). Although the wide confidence interval indicates limited precision, the finding aligns with evidence from Uganda and Rwanda, where men engaged in peasant farming or agricultural work showed higher knowledge and willingness to adopt vasectomy compared to businessmen (21,22).

A plausible explanation is that men in lower-income or manual labor jobs often face economic insecurity and may view vasectomy as a cost-effective strategy to limit family size and reduce financial burden. Additionally, daily laborers are frequently urban residents with greater access to health facilities, which may increase exposure to family planning counseling. In contrast, men in business or higher-income occupations may be more influenced by social prestige, cultural stigma, or concerns about masculinity, which can reduce acceptance of vasectomy. These parallels across different settings suggest that occupation is not merely a demographic variable but a proxy for socioeconomic pressures and cultural attitudes. Targeted interventions that address misconceptions and emphasize the economic benefits of vasectomy could therefore be particularly effective among men in vulnerable occupational groups.

Overall, these findings highlight that improving vasectomy uptake requires a multifaceted approach: increasing knowledge through health education, addressing cultural and social misconceptions, promoting positive attitudes, and enhancing access to quality counseling services. Health care providers play a crucial role, as they are often the primary source of information and guidance regarding vasectomy. Tailored interventions targeting both men and couples, particularly in rural areas, are needed to bridge the gap between awareness and intention.

7 Strength and limitation

7.1 Strength

This study has several strengths. It is the first facility-based assessment of vasectomy intention in the Arsi Zone, addressing a critical evidence gap. The application of multivariable logistic regression analysis enabled the identification of independent predictors of intention to use vasectomy while controlling potential confounding variables. This analytical approach enhances the internal validity of the findings and provides more robust and reliable estimates of association.

Second, the study placed emphasis on modifiable factors such as men's knowledge, attitudes, and spousal communication, which are amenable to intervention through health education, counseling, and community engagement. By focusing on these actionable predictors, the findings provide practical insights for improving clinical practice and health service delivery. This makes the study directly useful for designing targeted interventions that can increase male involvement in family planning and enhance vasectomy acceptance.

Third, the use of adjusted odds ratios with corresponding 95% confidence intervals allows for clear

interpretation of both the magnitude and precision of associations and facilitates meaningful comparison with existing national and international literature. In addition, standardized data collection procedures using the Kobo Toolbox platform contributed to data consistency, minimized entry errors, and enhanced the overall reliability of the results.

Finally, the relatively adequate sample size for multivariable analysis improved the statistical power of the study and supported the stability and robustness of the regression estimates.

7.2 Limitation

Despite these strengths, several limitations should be acknowledged. First, the cross-sectional study design restricts the ability to establish causal relationships between the identified predictors and intention to use vasectomy. Although significant associations were observed, temporal sequencing between exposure and outcome cannot be definitively determined.

Second, because the study relied on self-reported questionnaires, responses regarding knowledge, attitudes, spousal communication, and intention to use vasectomy may have been influenced by social desirability bias. Some participants may have overstated positive attitudes or willingness to consider vasectomy to align with perceived expectations, while underreporting negative beliefs or misconceptions. This potential bias could affect the accuracy of the measured prevalence and predictors and should be considered when interpreting the findings.

Third, participants were recruited from health facilities, the results may not be generalizable to men who do not access reproductive health services. The findings are context-specific to Asella Town and may not fully represent other Ethiopian regions. Differences in patient populations, resource availability, and organizational practices across healthcare settings may further restrict broader applicability.

Finally, although several relevant variables were included in the analysis, residual confounding may remain. Important factors such as cultural beliefs, religious influences, and broader sociocultural norms were not fully captured. In addition, the operational definitions of knowledge

and attitude may oversimplify complex perceptions, and qualitative insights into cultural and religious barriers were not explored. These limitations suggest that the measured associations may not fully reflect the multifaceted determinants of men's intention to use vasectomy.

8 Conclusion

This study found that the intention to use vasectomy among married men in Asella Town was relatively low at 24.2%. Significant predictors included urban residency and occupation as daily laborers, while knowledge of vasectomy showed a positive trend though not statistically conclusive. Despite vasectomy being a safe, simple, and highly effective permanent contraceptive method, its uptake remains limited due to sociocultural barriers, misconceptions, and inadequate information. These findings emphasize that men's willingness to consider vasectomy is strongly influenced by contextual factors such as access to health services, occupation, and awareness levels. Importantly, the results are specific to married men attending reproductive health services in Asella and may not be generalizable to rural or community-based populations in Ethiopia. Overall, the study underscores the need for targeted interventions to improve knowledge, dispel myths, and promote male involvement in family planning, while recognizing the broader cultural and systemic barriers that continue to hinder vasectomy acceptance.

9 Recommendation

Based on the above findings, the following recommendations are forwarded to improve the intention to use vasectomy among married men:

Clinical Practice Recommendations: Health professionals should integrate vasectomy counseling into routine ANC and FP services, ensuring couples receive balanced information on permanent methods. Use male health workers and peer educators as role models to normalize vasectomy discussions among men.

Promote spousal communication by encouraging joint FP counseling sessions. Tailor counseling for couples with larger family sizes, since evidence consistently shows higher intention once fertility goals are achieved. Highlight vasectomy as a shared responsibility option, reducing the burden on women.

Health System Recommendations: First, public health campaigns should focus on raising awareness about vasectomy, addressing misconceptions about its safety, permanence, and effects on sexual function.

Second, improving access to male-focused family planning services and counseling, particularly in rural areas, is crucial to increase knowledge and intention to adopt vasectomy.

Third, interventions should engage both men and couples in discussions about family planning, emphasizing the benefits of shared responsibility and completed family size.

Finally, community-based initiatives should work to reduce social stigma and cultural barriers that negatively affect attitudes toward vasectomy, using media campaigns, local leaders, and peer education.

For Future Researchers: Conduct longitudinal studies to establish causal relationships between knowledge, attitudes, and socio-demographic factors with the intention of using vasectomy. Future research should also explore the role of cultural, religious, and behavioral influences on male

contraceptive decision-making. Additionally, qualitative studies could provide insights into men's and couples' experiences, perceptions, and barriers to vasectomy uptake, informing more tailored and effective interventions.

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ANNEX

Annex I: ENGLISH VERSION QUESTIONNAIRE

Arsi University, College of Health Sciences Department of Obstetrics and Gynecology
Questionnaire designed to assess intention to use vasectomy and its predictors among married men attending reproductive health services at Asella Referral Teaching Hospital and Asella Health Center. I am interviewing clients on predictors of married men's intention to use vasectomy. In order to collect information necessary for developing appropriate strategies to increase male involvement in FP, so that, married men like you was develop appropriate knowledge, and have intention to use vasectomy as a contraceptive method for future life. To attain this purpose, you are honestly and genuinely requesting to answer the questionnaires. You were selected to participate in this study just by chance. I expect the interview take about 30-35 minutes. There can be more than one answer as given on the alternative choices or opinions. Your name or any identifying information was not be registered. You may refuse to answer any question and choose to stop the interview at any time, but the information you provide us is extremely important and valuable, as it was help the Government for formulating strategy on health sector to increase male involvement in FP. If you have any questions about the study, you can ask.

Principal investigator name: -Dr. Natnael Legesse phone no: -0991177495 email: -
natnaellegesse320@gmail.com

Would you participate in our study? Yes -----No----- Signature of participant-----

Date of interview: ----/-----/----

Name of data collector-----

Date-----/-----/----- signature -----

Questionnaire code-----

Part I: Socio-demographic characteristics

No	Questions	Categories & responses	Skip to
101	Your age?	----- year	
102	Ethnicity	1.Amhara 2.Oromo 3.Tigray 4. Gurage 5. Other(specify)-----	
103	Your religion?	1.Orthodox 2. Protestant 3.Catholic 4. Muslim 5. Other (specify)	
104	Your education level	1. unable to read and write 2. Read and write 3 primary (1-8) 4 secondary (9-12) 5.college/university and above	
105	Wife educational level	1. unable to read and write 2. Read and write 3 primary (1-8) 4 secondary (9-12)	
		5.College/university and above	

106	Your occupation	1. Civil servant 2. Has private business 3. Employed in private sector 4. Daily laborer 5.. others (specify)-----	
107	Wife occupation	1. House wife 2. Civil servant 3. Has private business 4. Employed in private sector 5. others (specify)-----	

Part II: Reproductive health related variables

No	Questionnaire	Categories & responses	Skip to
201	How long you lived with your wife	-----	
202	Number of children alive	Male----- Female-----	
203	Do you discuss about family planning methods with your partner	1. Yes 2. No	
304	Do you get emotional support from your partner to use FP.	1. yes 2. no	
305	Do you complete your family size	1. yes 2 no	
206	If no future desire number of children	Male----- Female-----	

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Part III: knowledge factor questionnaires			
No	Questionnaire	Categories and responses	Skip to
301	Have you heard about male sterilization (vasectomy)?	1. Yes 2. No	
302	Do you know that vasectomy is permanent and irreversible	1. Yes 2. No	
303	Do you know that vasectomy requires minor surgical procedure?	1. Yes 2. No	
304	Do you know that seminal fluid during ejaculation are present after vasectomy?	1. Yes 2. No	
305	Do you know how vasectomy works	1. Yes 2. No	
306	Do you know that vasectomy is done in Ethiopia without any charge?	1. Yes 2. No	
307	Do you know where vasectomy/male sterilization service is available?	1. Yes 2. No	
308	Have you heard that who can use vasectomy as a family planning method option?	1. Yes 2. No	

309	If yes for Q308 who are they	1.Any married men of reproductive group 2.marred men who complete their family size	
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Part IV Attitude related questionnaires

No	Question	Category and response	
401	FP is a responsibility of women	1.Agree 2.Neutral 3.Disagree	
402	Do belief that vasectomy negatively affect sexual performance/desire	1.Agree 2.Neutral 3.Disagree	
403	Vasectomy has side effects	1.Agree 2.Neutral 3.Disagree	
404	I am uncertain for the future pregnancy may be happened after vasectomy	1.Agree 2..Neutral 3.Disagree	

405	Vasectomy is similar with castration	1.Agree 2.Neutral 3.Disagree	

408	vasectomy can cause physical weakness, cannot do hard work	1.Agree 2.Neutral 3.Disagree	
	Part V behavioral related questionnaires		
410	vasectomy can ashamed the individual in the community	1.Agree 2.Neutral 3.Disagree	
411	Vasectomy is culturally unacceptable	1.Agree 2.Neutral 3.Disagree	
412	Vasectomy is not acceptable in my religion	1. Agree 2.Neutral 3.Disagree	
Part VI wasingness to use questionnaires			
No	Question	Categories and response	Skip to
501	Do you have wasingness to use vasectomy for future?	1. Yes 2. No	If no skip to Q.503
502	If yes when	1.within 5 years 2.within 5-10 years 3.within 10-15 years 4.after 15 years	
503	If your answer is no for Q.501 why? (more than one answer can be possible)	1.lack of information 2.Service is not available 3.Need more children	

		4. Fear of procedure	
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		5. Fear of side effect 6. its irreversibility 7. Make sexually inactive 8. partners opposition 9. Not allowed religiously 10. Lack of trained providers 11. lack of roll model 12. Other(specify)-----	
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Annex 2. DECLARATION

DECLARATION OF THE INVESTIGATOR

I, the undersigned student of specialization in Gynecology and Obstetrics, declare that this proposal is my original work in partial fulfilment of the requirement for specialization in Gynecology and Obstetrics to my best knowledge.

Name of investigator: Dr _____

Signature: _____ Date_____

DECLARATION OF ADVISORS

We, the undersigned Advisors, declare that this proposal thesis is our original work in partial fulfillment of the requirement for the specialty of OBGYN for the stated student above to our best knowledge. We confirmed that this proposal thesis is ready for defense with our approval as the university advisors.

Date of Submission: _____

Name _____ of _____ primary

Advisors: _____ Signatures _____ Date Dr. _____

Adane

sisay _____

Name of secondary Advisors:

Signatures

Date

Dr. Gizachew Abdeta (MD, MPH, Assist Prof)



Declaration of Examiners

We, the undersigned, members of the board of examiners of the final open defense by Dr. Natnael Legesse, have read and evaluated his research proposal entitled “intention to use vasectomy and its predictors among married men attending reproductive health services at Asella Referral Teaching Hospital and Asella Health Center, 2025G.c” and examined the candidate. This is, therefore, to declare that the proposal is ready for research in partial fulfillment of the requirements for specialty degree in Obstetrics and Gynecology.

Chairperson name	Signature	Date
_____	_____	_____
Internal examiner name	Signature	Date
_____	_____	_____
External examiner name	Signature	Date
_____	_____	_____
Department head	Signature	Date
_____	_____	_____