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# Intention to Use Vasectomy and Its Associated Factors Among Married Men in Debre Tabor Town North West Ethiopia 2019.

Alemu Degu


BAHIR DAR UNIVERSITY COLLEGE OF MEDICINE AND HEALTH SCIENCES SCHOOL OF HEALTH SCIENCES DEPARTMENT OF MIDWIFERY

# INTENTION TO USE VASECTOMY AND ITS ASSOCIATED FACTORS AMONG MARRIED MEN IN DEBRE TABOR TOWN NORTH WEST ETHIOPIA 2019.

PRINCIPAL INVESTIGATOR: ALEMU DEGU (BSc, MSc CANDIDATE)

ADVISORS: - FENTAHUM YENEALEM (BSc, MSc)

KIHNETU GELAYE (BSc, MSc)

A THESIS RESEARCH SUBMITTED TO DEPARTMENT OF MIDWIFERY, SCHOOL OF HEALTH SCIENCES, COLLEGE OF MEDICINE AND HEALTH SCIENCES BAHIR DAR UNIVERSITY IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER IN CLINICAL MIDWIFERY

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COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF HEALTH SCIENCS

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| FULL TITLE | INTENTION TO USE VASECTOMY AND ITS ASSOCIATED FACTORS AMONG MARRIED MEN IN DEBRE TABOR TOWN NORTH WEST ETHIOPIA 2019.COMMUNITY BASED CROSS SECTIONAL STUDY. |
| INVESTIGATOR | ALEMU DEGU (BSC, MSC CANDIDATE IN CLINICAL MIDWIFERY)<br>CELL PHONE: - +251 920770887 /+251947475435<br>E-MAIL: -degualemu53@gmail.com |
| ADVISORS | 1.MR. FENTAHUN YENEALEM (BSC, MSC IN CLINICAL MIDWIFERY)<br>CELL PHONE: - +251921281333<br>E-MAIL: -yenefenta84@gmail.com<br>2. MR. KIHNETU GELAYE (BSC, MSC IN CLINICAL MIDWIFERY)<br>CELL PHONE: -+251910333145<br>E-MAIL: - kihinetugelaye031@gmail.com |
| STUDY AREA | DEBRE TABOR NORTHWEST ETHIOPIA |
| TOTAL DURATION | OCTOBER 2018 -JUNE 2019 |
| TOTAL COST | 28,633 ETHIOPIAN BIRRS |

## Approval sheet

The undersigned examining committee certify that the thesis presented by Alemu Degu entitled: Intention to use vasectomy and its associated factors among married men in Debre Tabor town north west Ethiopia 2019, submitted to Bahir Dar University, College of Medicine and Health Sciences, School of Health Sciences, Department of Midwifery, in partial fulfillment of the requirements for master degree in Clinical Midwifery compiles with the regulation of the University and meets the accepted standards with respects to originality and quality.

Place of submission: Midwifery Department, College of Medicine and Health Sciences, Bahir Dar University.

Date of Submission: _____

**Student name**: - Alemu Degu Signature _____ Date_____

**Research advisors:**

| Name | Signature | Date |
|---|---|---|
| 1. Fentahun Yenealem (BSc, MSc) | _____ | _____ |
| 2.Kihnetu Gelaye(BSc, MSc) | _____ | _____ |

**Chair of department**

Selamawit Lake (BSc, MSc) Signature _____ Date _____

**External examiner:**

Mitku Andualem(Assi. Prof.) Signature _____ Date _____

**Internal examiner:**

Simegnew Asmire (BSc,MSc) Signature _____ Date _____

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## Abbreviations

**AOR**: Adjusted Odds Ratio

**CI:** Confidence Interval

**COR**: Crude Odds Ratio

**CPR**: Contraceptive Prevalence Rate

**CSA:** Central Statistical Agency

**EDHS:** Ethiopian Demographic Health Survey

**FP:** Family Planning

**IQR:** Inter-Quartile Range

**SD**: Standard Deviation

**SPSS:** Statistical Package for Social Science

## Abstract

**Introduction: -**Vasectomy is one of the most effective and permanent male contraceptive methods which involves cutting and ligating of the Vass difference to make the semen free of sperm during ejaculation. In spite of its effectiveness, simple, safety, and had many advantages from other methods it is not well known in the majority of our community.

**Objective: -**The aim of this study was to assess intention to use vasectomy and its associated factors among married men in Debre Tabor town, North West Ethiopia 2019.

**Methods: -**A community based cross-sectional study was conducted among 402 married men from March 05 to April 15, 2019. Simple random sampling technique was employed to select the study participants, and data was collected by face to face interview using structured and pre-tested questionnaire. Data was entered by Epi data and analyzed by SPSS version 23. The association between variables was analyzed using Bivariate and multivariable logistic regression models and p-value < 0.05% at 95% CI was considered as statistically significant.

**Result: -** A total of 402 participants were included with response rate of 98.75%. The mean age of participant was 37.12(SD ± 6.553) years. The prevalence of intention to use vasectomy was 19.6% with 95%CI (15.6%-23.4%). Multivariable logistic regression showed that age from 30-39 years (AOR=3.2(95% CI:1.19-8.86)), having more than three living children (AOR=2.5(95% CI:1.41-4.68)), good knowledge (AOR=3.4(95%CI:1.88-6.40)) and positive attitude (AOR=4.8(95% CI:2.61-8.80)) of married men were significantly associated with intention of vasectomy.

**Conclusion and recommendation: -**The intention of men to use vasectomy was comparable with the finding of survey done in four regions of Ethiopia (Amhara, Oromia, SNNP and Tigray). Age, number of living children, knowledge and attitude were significantly association with the intention of vasectomy. As per finding improving level of knowledge and attitude towards vasectomy is an essential weapon to scale up intention of men to use vasectomy.



***Key words**: - Vasectomy, Intention, Debre Tabor*

# 1. Introduction

## 1.1 Background

Family planning refers to a conscious effort by couples to limit or space the number of children they need through the use of contraceptive methods. Vasectomy is one of the modern and permanent method(1).

Male involvement is a crucial thing in family planning (FP). Their role is not only limited in using methods like condoms and having vasectomies; but also includes encouraging and supporting their partner and their peers in decision making to use FP and affecting the policy positively to create a conducive environment for male related programs (2).

Vasectomy is effective, safe cheap and permanent method of family planning for men involving a surgical process of cutting and then ligating the Vass difference through which sperm travel from the testicles to combine with semen at ejaculatory duct making the semen free of sperm. It is done for those men who completes their family size and not want more children(3).

Vasectomy is one of the two permanent FP methods and almost all men are eligible for it and it is widely chosen in regions and countries with high socioeconomic development and gender equality(4).

Vasectomy is the most cost-effective and safest permanent method which is painless, fast, simple, and extremely effective requires little recovery time, has economic and health benefits for the family, has no serious side effects, and, does not interfere with sexual function or pleasure but it is very much limited in sub-Saharan countries including Ethiopia(5).

Vasectomy is a method of family planning which is known and acceptable in some developed countries of the world including China, India, Thailand, Korea, the United Kingdom, Canada and the United States. Despite vasectomy is safer and easy to perform only around 45 million couples worldwide rely on it for contraception, as compared to 150 million female sterilization users(6, 7).

## 1.2 Statement of the problem

The number of world population is increasing from day to day. It is expected that the world population will reach to 8 billion by 2025(8). About three fourths of the world population lives in the developing country. The goal of family planning all over the world has attracted attention due to its importance in decision making about population growth and development issues(8).

Men's involvement in sexual and reproductive health issues is very imperative for better outcome. One of the most important indicators of reproductive health is effective family planning (FP). Most FP methods often focus exclusively on women, with the objectives of preventing frequent births and reducing maternal and fetal death(9).

Ethiopia was the second populous country in Africa next to Nigeria with estimated population of 101.7 million in the mid 2016 which is affected by a fast population growth and pregnancy related complications such as abortion and consequent high maternal morbidity and mortality due to unintended and unwanted pregnancies (10).When a couple desires to limit their family size, the most effective methods with the least side effects should be available, vasectomy is one of these methods but it is used little around the world(11).

Most family planning programs neglect and give little emphasis of men role in effective and consistent utilization of contraceptive methods that require male involvement such as vasectomy(12).

Across the world the prevalence of vasectomy is different(4). It is relatively high in developed countries like 12% in the USA ,17% in UK, 21% in New Zealand but it is extremely very low in Africa like 0.4% in Botswana, 0.7% in south Africa and below 0.1% in Ethiopia(4).

Majority of couples use family planning to limit birth rather than to space (13, 14), and the overall contraceptive coverage is increasing from time to time(15) but, the regional trend in Africa showed that the use of long acting and permanent family planning methods were very low(16).

Ethiopia has a target plan to increase the contraceptive prevalence to 55% by the year 2020, to achieve this goal, the Federal Ministry of Health (FMOH) in collaboration with Marie Stopes International Ethiopia (MSIE), is focusing on diversifying the FP method mix by increasing demand and access to long-acting and permanent methods.(17). Due to this hard working the CPR was reached to 35% in 2016 from 27% in 2011, and the total fertility rate falling from 4.8 to 4.6

during the same time frame (18). According to EDHS 2016 data the national demand for family planning is 58% (22% unmet and 36 met need) However, the involvement of male by using vasectomy is almost all negligible (19).

Most family planning programmers' in Ethiopia seems to focus on women only, the non-inclusion of men in various family planning programs by program planners has made men not to know much about family planning and the benefits to their spouses and family(20).

As EDHS 2016 data showed that the most commonly used contraceptive method for currently married couples in Ethiopia is injectables (23%), followed by implants (8%)(19),but when we see the prevalence of vasectomy is extremely very low below 0.1%(4).

At the same time the discontinuation rate is around 35% due to factors like desire to become pregnant (42%), side effects (18%), wanting more effective method (11%), infrequent sex or husband away (8%) and inconvenience of use (6%)(19).

To minimize the discontinuation rate, to alleviate women burden (side effect from contraceptive) and to get more effective method vasectomy is an important contraceptive method with a very minimal side effect, but it is still not well known and practiced yet. Identifying factors that hinders intention of male to use vasectomy is crucial to design effective family planning strategy that scale up the intention of men to use vasectomy in the years to come.

Therefore, this study was aimed to investigate the intention to use vasectomy as a contraceptive method and its associated factors among married men's in Debre Tabor town North West Ethiopia.

## 1.3 Literature review

### 1.3.1 Intention to use vasectomy

A cross sectional study done in Indonesia on vasectomy intention among married males shows that only 16.6 % of participant had intend to use vasectomy as a method of contraceptive(21).

A cross sectional research done in India showed that 21.42% of men had the intention to use vasectomy as a contraceptive method. (22). Another study done in Central India showed that 21.0% of men had the potential demand for vasectomy to control their fertility permanently(23).

Similar study done in the same country in India on Vasectomy illustrates only 11% of study subjects showed willingness to undergo vasectomy for the future life to control their fertility permanently(24).

Another study done in India on post-partum women revealed that only 13.7% were confident that their husbands were willing to use vasectomy as a contraceptive method(25).

A community based cross sectional study done in Bangalore rural population announces 82% the participant had heard about vasectomy; but from this large segment of population only 17% of them had the intention to accept and use vasectomy for future life(26).Study done in Nigeria emphasize that 29.7% of study participants had intention to adopt vasectomy as a means of birth control for FP(6).

A study carried out in Nepal on Intention to accept vasectomy among married men reveals 39.0 % had an intention to accept vasectomy(27).

Research done in Rwanda on vasectomy acceptability shows that 26.6% of respondents accepts to undergo vasectomy in future life to control their fertility permanently (28). Likewise study done in Kenya shows that 27.5% the participant had the intention to use vasectomy as a family planning method for their future living(3).

Institutional based cross sectional study conducted on men's knowledge and attitude towards vasectomy in east Wollega zone of Oromia region, Ethiopia revealed that 30% of participants had intention to use vasectomy as a FP method for future life (29). Study conducted on Knowledge, Attitudes and Practices (KAP) of Permanent Methods in four regions of Ethiopia (Oromia,

Amhara, SNNP and Tigray)revealed that nearly 18.1% of men want to use a voluntary permanent FP method for the future(18).

### 1.3.2Factors affecting intention of vasectomy

#### Socio-demographic factors

Age has a great impact on the selection of vasectomy as a contraceptive method. Cross sectional study done in Indonesia showed that age is among the most statically significant predictors for intention of adopting vasectomy(30).

Studies in India showed that age, educational status, occupation, were associated with intention of married men to use vasectomy for their future life as a means of permanent FP methods(22, 24, 26, 31).

A cross sectional study done in Iran conclude that vasectomy users were predominantly older, better educated, than the general male population(32). Study performed in Nepal shows that age, are significantly associated with intention to accept vasectomy(27).

Studies done in Nigeria declare that respondents' age, educational status, occupation including wife occupation and religion were the significant factors that determine the intention of married men to use vasectomy for contraceptive future the life(6, 7, 33).

Religious barrier is one of the most reason that hider the intention of men to use vasectomy as it is revealed by studies done in Ethiopia and east Wollega Oromia region(12, 29).

#### Reproductive related factors

Studies in India revealed duration of married year number of children, complete family size were among the significant factors that affect the intention of men to use vasectomy (22, 31). Support from partner is one significant factor for vasectomy intention as it revealed by study done in Nepal(27).

Cross sectional studies done in two different settings of Indonesia showed that, number of living children, complete family size, partner support, were statically significant predictors of intention of adopting vasectomy(21, 30).

Number of living children, desire of more children and partner opposition were predominantly affect their intention to use vasectomy for future life as a permanent birth control method as it is revealed by studies done in Iran and Nigeria(32, 33).

Cross sectional study conducted in Kenya conclude that duration of married year and number of living children were significant factors for intention to use vasectomy(3). Study in Rwanda also showed that number of children were significantly associated with men intention to use vasectomy(28).

**Knowledge and attitude factors**

A study finding in Washington DC showed that the intention of vasectomy was affected by lack of awareness, cultural & gender norms , rumors& myths, anxiety about undergoing a surgical procedure as well as, inadequate human resources, limited access to services, FP services geared to women(34).

Study in Inia showed that women are best for sterilization procedure, fear of impotency, fear of general weakness, can't do heavy work and fear of surgery were the major reasons that prevent adoption of vasectomy(24).

Attitude is the main significant factor that hinder intention of men to use vasectomy as it was revealed by studies in Indonesia(21, 30) .Study in Nepal also revealed that attitude was a significant factor for intention of vasectomy(27).

Research done in low-resource settings revealed that willingness to use vasectomy was very low as a result of different significant factors like lack of knowledge, negative attitude(11).

Studies done in Nigeria declare that respondents' awareness, , men's attitude, lack of attention to vasectomy , lack of cultural acceptability of the procedure, its Irreversibility , fear of illness, fear of operation , fear of not being able to have children, , fear of what people will say, lack of knowledge , fear of impotence, were factors to adopt vasectomy(33).

Another study which is also conducted in Nigeria shows that knowledge about vasectomy was the strongest single factor that influencing the acceptance of vasectomy(35). .

Research conducted in Ghana revealed that vasectomy was perceived by some of the respondents to be synonymous to castration which comes with negative effects. Inadequate knowledge,

negative perceptions, future uncertainty, and the irreversible nature of vasectomy emerged as contributing to the low patronage and intentions of opting for vasectomy(36).

Another study in Ghana revealed that male sterilization is still perceived by some people to be synonymous to castration and can lead to sexual weakness and impotency. factors contributing to their negative perceptions and low patronage included are inadequate knowledge, negative perceptions / thoughts, future uncertainty, vasectomy would hinder God's command on marriage and procreation, lack of clear and understandable information(37).

Cross sectional study conducted in Kenya conclude that was among the significant factors that influence the intention of men to use vasectomy as a FP method for future life(3), and study conducted in Rwanda revealed attitude was a significant factor for intention to use vasectomy(28).

A study done in East Wollega Zone of Oromia region Ethiopia showed that only 35.3% were heard about vasectomy, lack awareness about vasectomy and individuals undergo vasectomy, fear of procedure, will be sexually inactive, considered s castration, are some of listed factors that hinder intention of men's to practice vasectomy(29).

A study done on factors affecting vasectomy acceptability in Ethiopia among Dashen brewery workers revealed that none of the respondents have ever used vasectomy due to misleading information towards its impact on sexual performance, , of information (12).

**Health care related factors**

Studies in Indonesia showed that unavailability of service was one factor for intention to use vasectomy as a contraceptive method(30). It also supported by study done in Ethiopia on factors affecting vasectomy acceptability(12). Studies in Ghana and Kenya showed that lack trained care provider is another reason for intention of vasectomy(3, 37).

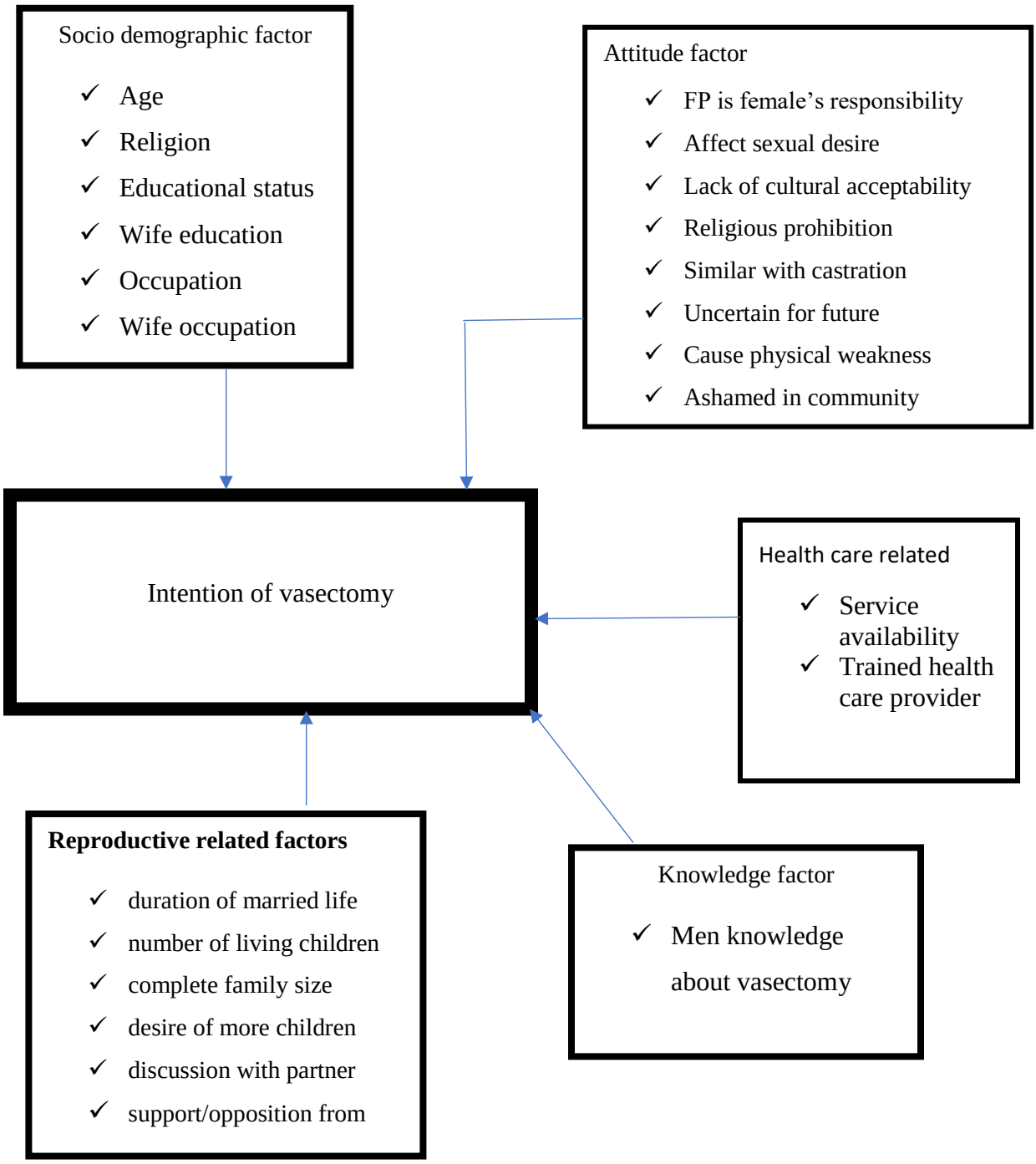



Figure: - 1 Conceptual framework for the study adapted from different literatures

## 1.4Justification

Most FP method often focuses exclusively on women. Men involvement in FP is very crucial which means that use of family planning methods, support their wife to use of family planning method, make decision in favor of contraceptive use, but it is very poor in our set up. Intention of men towards vasectomy is extremely very low below 0.1%(4).

In spite of its effectiveness, simple, safety, and had many advantages from other methods vasectomy is not well known in the majority of our community and not practiced yet due to many factors. Study on intention to use vasectomy and its associated factors among married men was not done in our setting.

There for the finding of this study was aimed to assess the prevalence, identify the gap that hinders men intention to use vasectomy as a contraceptive method, create awareness to increase men participation in FP and reduce women burden in relation to contraceptive.

It will serve as a source of reference and clue for future researcher regarding to vasectomy to increase men participation and value towards vasectomy.

This study will also further help policy makers and stakeholders to plan and implement various delivery strategies like awareness creation, giving training for care provider, involving NGOs to integrate men into family planning.

## 2. Objectives

### 2.1 General objective

- To assess intention to use vasectomy and its associated factors among married men in Debre Tabor town North West Ethiopia 2019.

### 2.2 Specific objectives

- To determine intention to use vasectomy among married men.
- To identify factors associated with intention to use vasectomy among married men.

# 3 Methods

## 3.1. Study design and period

A community based cross-sectional study design was conducted in Debre Tabor town from March 05 to April 15, 2019.

**3.2. Study area: -** The study was conducted in Debre Tabor town which is found in Amhara region and it is a capital city of South Gondar Zone, North West Ethiopia. It is located 665 kilometers north west of Addis Ababa (the capital city of Ethiopia), 103 kms north west of Bahir Dar, 100 kms southeast of Gondar and 50 kms east of Lake Tana. Based on Debre Tabor town administration in 2018 the town had a total population of 92,530 of whom 44,305 were men and 48,225 women. The town was divided in to six small administrative units called kebeles and had one general hospital, 3 health centers and 4 Health posts(38).


Figure: - 2 Map of Debre tabor Amhara region north west Ethiopia.

### 3.3. Population

**3.3.1. Target/source and study population: -**In this study both are similar and all marred males whose wives were in reproductive age group living in Debre tabor town were the target and study population.

**Samples: -**Randomly selected married males living in Debre tabor town during the study period were the sample.

### 3.4. Inclusion and exclusion criteria

**Inclusion criteria: -** All married men whose wife were in reproductive age group in the town within the study period were included.

**Exclusion criteria:** -Those married men whose wife were in reproductive age group who: - were critically ill (bed reddened), had already done vasectomy if there was, had infertile wife, had wife with hysterectomy and married men new for Debre tabor (live less than 6 months during data collection period) were excluded from the study.

### 3.5. Sample size determination

Epi-Info version 7 statistical software was used to calculate the sample size for objective one with the assumption of the proportion of men intention to use vasectomy to be 39%(27), 95% confidence interval with 5% margin of error then it became 365 with 10% of non-response rate the total sample size becomes 402.Sample size for the second specific objective two was also calculated by using different variables from the same study with the same assumption.

Table: - 1 Sample size calculation by using different independent variables for objective two.

| Objective | Variables | % out come in exposed group | % out come in un exposed group | OR | Calculated sample size |
|---|---|---|---|---|---|
| To identify factors affecting intention to use vasectomy among married men | Age 30-39 | 48.5% | 24.5% | 2.9 | 142 |
| | Attitude towards vasectomy | 66% | 34% | 3.7 | 88 |

**Finally, the largest sample size is taken402, which is calculated by proportion.**

### 3.6. Sampling technique and procedures

Simple random sampling technique was applied to select 402 married men for the study. A total of 14,088 households and 14,614 married males were living in the town(38). A household was basic sampling unit in each kebele and samples were allocated proportionally to each based on their total household. The number of households with married men in each kebele were found from the kebele registration book. Then after Study households were selected from each kebele through simple random sampling technique by using table of random numbers starting from kebele one from a random start point. One married man per household was interviewed. In cases where two or more eligible men were found in one house hold only one was interviewed by lottery method and if no eligible men were identified in the selected household, the next eligible household located in the clockwise direction was visited and included until desired sample was got.

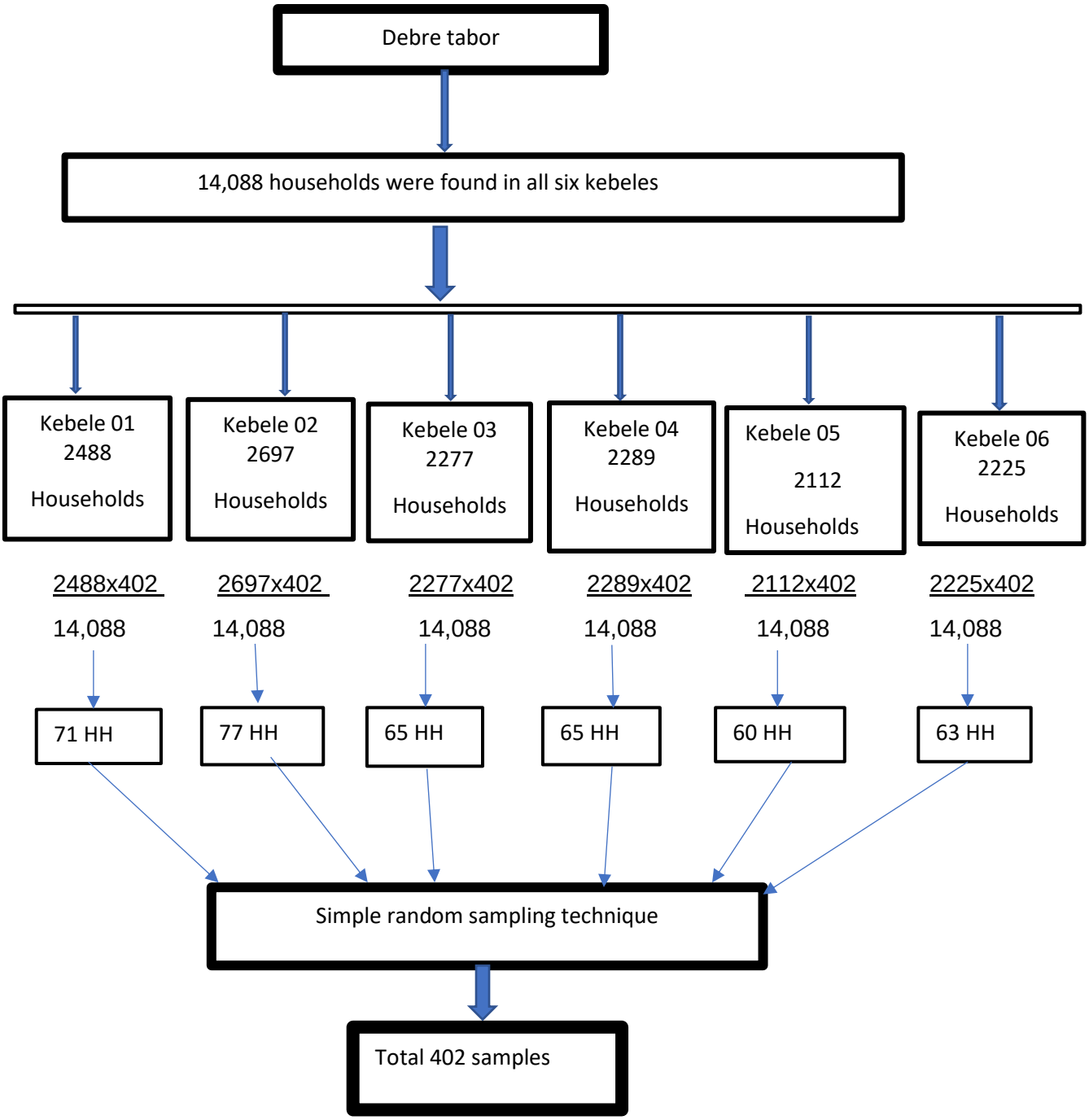



Figure: - 3 Schematic presentation of sampling procedure for study conducted on intention to use vasectomy and its associated factors among married men in Debre Tabor town North West Ethiopia 2019.

## 3.7. variables

**3.7.1 Dependent variable:** -intention to use vasectomy(yes/no)**.**

**3.7.2 Independent variables**

Socio-demographic factors: -Age, Educational status, Religion, occupation, wife educational status and occupation.

Knowledge: -knowledge about vasectomy.

Attitude factors/misconception: -Decrease sexual desire, decrease sexual performance, considered as castration, sin full to God, being shamed, FP is purposes of women.

Reproductive related factors: - Duration of married life, number of living children, complete family size, desire of more children, discussion with spouse, emotional support from parents, partner opposition.

Health care related factors: - Service availability, trained care provider**.**

## 3.8. Operational definition

**Knowledge: -**In this study knowledge about vasectomy was determined by using 9 questions. A value of 1 and 0 was given for each correct and incorrect answer respectively. We classified men in to two group as they had good knowledge and poor knowledge(39).

**Good knowledge:** Those individuals who answered at least 5 questions.

**Poor knowledge:** Those individuals who answered less than 5 questions,

**Attitude: -**We classified the attitude of participants in to two after calculating the mean score. (12, 40).

**Positive attitude:** Those individuals who scored greater than or equals to the mean score.

**Negative attitude:** Those individuals who scored less than the mean score.

**Intention: -**means willingness of respondent to use vasectomy as a contraceptive method for future time(41).

### 3.9. Data collection procedures and data collection tools

Interviewer -administered structured questionnaire were adapted initially in English language after thorough review of different literatures and then translated in to a local language (Amharic) by an individual who have good ability of both languages, finally retranslated back to English by other individual to ensure consistency.

Data were collected via face to face interview technique using structured and pretested questionnaire. Three male diploma midwife data collectors and one supervisor (BSc midwife) were involved in the hole data collection activity under the immediate help of PI for possible guidance.

### 3.10. Data quality management

In order to assure the data quality, data collection tool was prepared after intensive review of relevant literatures. Before undertaking actual data collection, questionnaires were pre- tested in randomly selected 20 married men (5% of the sample) at Werota town nearest to the study setting. This process was ensuring the clarity, ordering, consistency and acceptability of the questionnaires for the main study. Data collectors and supervisors were aware about confidentiality, responders' right, informed consent, objective of the study, on techniques of the interview and filling the questionnaire through one day training. The completeness of the data was checked by data collectors during data collection and also immediately after data collection by the supervisor and principal investigator and anonymous was maintained throughout the process of data collection.

### 3.11. Data Processing and Analysis

Data were cleaned, coded and entered by using Epi-Data version 3.1 and then exported to SPSS (statistical package for social science) version 23 for analysis. Descriptive analysis (frequency, figures and tables) was used to summarize the data and to describe the participants. Univariate binary logistic regression analysis was executed to see the association between each independent and dependent variable. Finally, all independent variables associated with dependent variable with $p<0.2$ were entered into multivariable logistic regression for further analysis by controlling confounding factors and significant association was identified based on $p<0.05$ and adjusted odds ratio (AOR) with 95% CI. The final model was checked using the Hosmer-Lemeshow Goodness of fit test. The result of this study was interpreted in the form of figures and tables.

### 3.12. Ethical Considerations

Ethical clearance was obtained from the institutional review board of Bahir Dar University. Permission was be obtained from Debre Tabor town administration and the respective kebeles administrations. The objectives and the potential harm and benefit of participating in the study was explained, and the possibility of refusing to respond to the questionnaires was clarified before written consent was obtained from the study participant.

Adequate time were offered to the participants to decide to participate or withdraw from participation. Names of respondents was not required and the completed questionnaires was also kept in the investigator's locker to keep the confidentiality of the study participants.

### 3.13. Result dissemination

The finding of the research was submitted to Bahir Dar University College of Medicine and Health Sciences School of Health Sciences Department of Midwifery. The result will be presented at Bahir Dar University and different seminars, meetings and workshops. It is also shared to the town administrations, policy makers, and other relevant stakeholder in Debre Tabor town accordingly. Finally, the findings will be published and disseminated through different journals and scientific publications if it is possible.

## 4. Result

### 4.1. Socio demographic characteristics of participants

A total of 402 married men were participated in this study with response rate of 98.75%. Half of the respondent (50.3%) was belonged to the age group of 30-39 years with a mean age of 37.12 with standard deviation of (SD ± 6.553) years with range from 27-54.

Majority of respondents (96.7%) were Amhara by ethnicity and orthodox Christians followers (89.4) In addition around 63% of the participants were attained college and above in their educational status. (Table 2).

Table: - 2 Socio -demographic characteristics of study participants towards vasectomy in Debre Tabor North West Ethiopia March 05 -April 15, 2019(N=397).

| Variables | | Frequency | Percent |
|---|---|---|---|
| Age | 20-29years | 57 | 14.4 |
| | 30-39 years | 200 | 50.3 |
| | 40-49 years | 119 | 30.0 |
| | ≥50 years | 21 | 5.3 |
| | Mean age ± SD | | 37.12±6.553 |
| Ethnicity | Amhara | 384 | 96.7 |
| | Oromo | 7 | 1.8 |
| | Others* | 6 | 1.5 |
| Religion | Orthodox | 355 | 89.4 |
| | Muslim | 33 | 8.3 |
| | Others** | 9 | 2.3 |
| Educational status | No formal education | 36 | 9.1 |
| | Primary | 36 | 9.1 |
| | Secondary | 73 | 18.4 |
| | College and above | 252 | 63.4 |
| Wife education | No formal education | 56 | 14.1 |
| | Primary | 65 | 16.4 |
| | Secondary | 94 | 23.7 |
| | College and above | 182 | 45.8 |
| Occupation | Civil servant | 173 | 43.6 |
| | Private business | 164 | 41.3 |
| | Employed at private sector | 45 | 11.3 |
| | Daily laborer | 15 | 3.8 |
| Wife occupation | House wife | 157 | 39.5 |
| | Civil servant | 113 | 28.5 |
| | Private business | 92 | 23.2 |
| | Employed at private sector | 21 | 5.3 |
| | Student | 14 | 3.5 |

*Tigray, Gurage ** protestant, catholic

### 4.2. Reproductive characteristics of participants

Majority of study participant (89.4%) were discussed abort FP with their partner. The average duration of married year, was 9.85(SD ± 4.82) year.

The median number of living children, and the median future desired number of children per man was 3 with inter quartile range of (IQR±2) children, 2(IQR ±2) children respectively (Table 3).

Table: -3 Reproductive characteristics of study participants towards vasectomy in Debre Tabor town North West Ethiopia March 05 -April 15, 2019(N=397).

| Variables | | Frequency | Percent |
|---|---|---|---|
| Duration of married year | ≤ 5 years | 95 | 23.9 |
| | 6-10 years | 157 | 39.5 |
| | 11-15 years | 77 | 19.5 |
| | ≥16 years | 68 | 17.1 |
| | mean ± (SD) | | 9.85±4.82 |
| Number of living children | ≤3 children | 243 | 61.2 |
| | >3 children | 154 | 38.8 |
| | mean ±(SD) | | 3.01±1.56 |
| Discuss abort FP with partner | no | 355 | 89.4 |
| | yes | 42 | 10.6 |
| Get emotional support from partner | no | 102 | 25.7 |
| | yes | 295 | 74.3 |
| Complete family size | no | 116 | 29.2 |
| | yes | 281 | 70.8 |
| Future desire no of children(N=281) | | | |
| | ≤ 3 children | 203 | 72.2 |
| | >3 children | 78 | 27.8 |
| | mean±(SD) | | 2.73±1.42 |

### 4.3. Knowledge and attitude of study participants towards vasectomy

Two third the of the study participants (62.2) had poor knowledge about vasectomy, but 37.8% of them had good knowledge. Likewise, majority of participants (61.7%) had negative attitude while 38.3% had positive attitude towards vasectomy (table 4).

Table: - 4 Number and percent of study participants who gave response for selected knowledge questions about vasectomy, in Debre Tabor town North West Ethiopia, March 05-April 15, 2019 (N=397).

| Knowledge questions | **Response** | **Frequency (%)** |
|---|---|---|
| Vasectomy is a contraceptive method by ligating the vas deference | Yes | 221(55.5) |
| | No | 176(44.5) |
| Vasectomy is permanent and irreversible? | Yes | 189(47.6) |
| | No | 208(52.4) |
| Vasectomy requires minor surgical procedure? | Yes | 197(49.6) |
| | No | 200(50.4) |
| Seminal fluid during ejaculation are present after vasectomy | Yes | 128(32.2) |
| | No | 269(67.8) |
| Do you know how vasectomy works? | Yes | 108(27.2) |
| | No | 289(72.8) |
| Vasectomy is done in Ethiopia without any charge | Yes | 130(32.7) |
| | No | 267(67.3) |
| Do you know where vasectomy service is available | Yes | 171(43.1) |
| | No | 226(59.9) |
| Have you heard that who can use vasectomy as a family planning? | Yes | 202(50.9) |
| | No | 195(49.1) |
| If yes who are they(N=202) | All married men | 33(16.3) |
| | Married men who complete family size | 169(83.7) |
| Overall level of knowledge | Poor knowledge | 247(62.2) |
| | Good knowledge | 150(37.8) |

Table: - 5 Number and percent of study participants who gave response for selected attitude questions about vasectomy, in Debre Tabor town North West Ethiopia, March 05-April 15, 2019 (N=397).

| Attitude questions | Agree | Neutral | Disagree |
|---|---|---|---|
| FP is a responsibility of women | 15(3.8) | 2(0.5) | 380(95.7) |
| Do you believe that vasectomy negatively affects sexual performance/desire | 95(23.9) | 222(55.9) | 80(20.2) |
| Do you believe that vasectomy has series side effects | 133(33.5) | 203(51.1) | 61(15.4) |
| Vasectomy is not acceptable in my religion | 280(70.5) | 52(13.1) | 65(16.4) |
| Vasectomy is culturally unacceptable | 259(65.2) | 63(15.9) | 75(18.9) |
| I am uncertain for the future pregnancy may be happen after vasectomy | 82(20.7% | 204(51.3) | 111(28) |
| Vasectomy is similar with castration | 132(33.2) | 203(51.1) | 62(15.7) |
| Vasectomy can cause physical weakness, cannot do hard work | 38(9.6) | 247(62.2) | 112(28.2) |
| Vasectomy can ashamed the individual in the community | 82(20.6) | 127(32%) | 188(47.4) |
| | | Frequency (%) | |
| Overall Attitude | Negative | 245(61.7) | |
| | Positive | 152(38.3) | |

### 4.4. Intention to use vasectomy among study participants

The intention of married men to use vasectomy as a contraceptive method for future life was 19.6% with 95% CI (15.6%-23.4%). Among those participants who had intention to use vasectomy 25.6%,29.5%,20.5% and 24.4% had intention to use it within five years, from 6-10 years, from 11-15 years, and above 15 years respectively (figure 4).

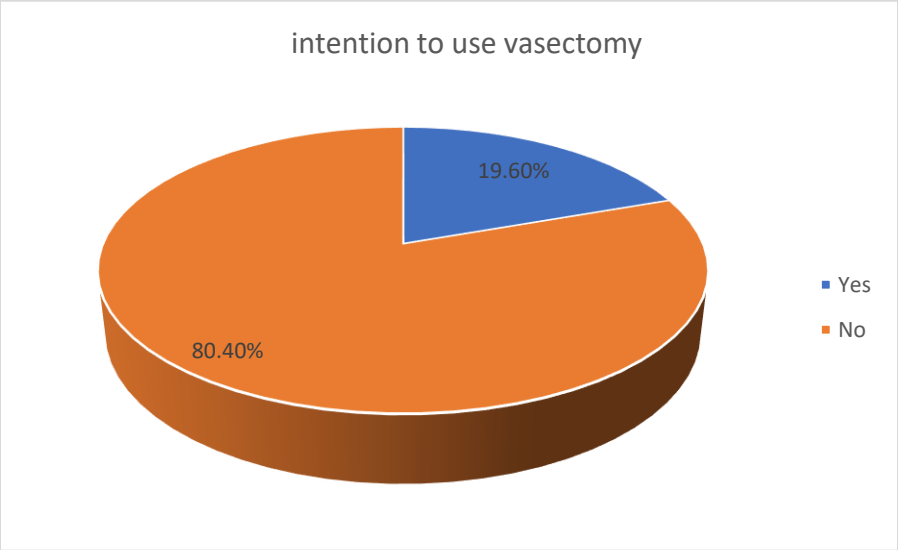
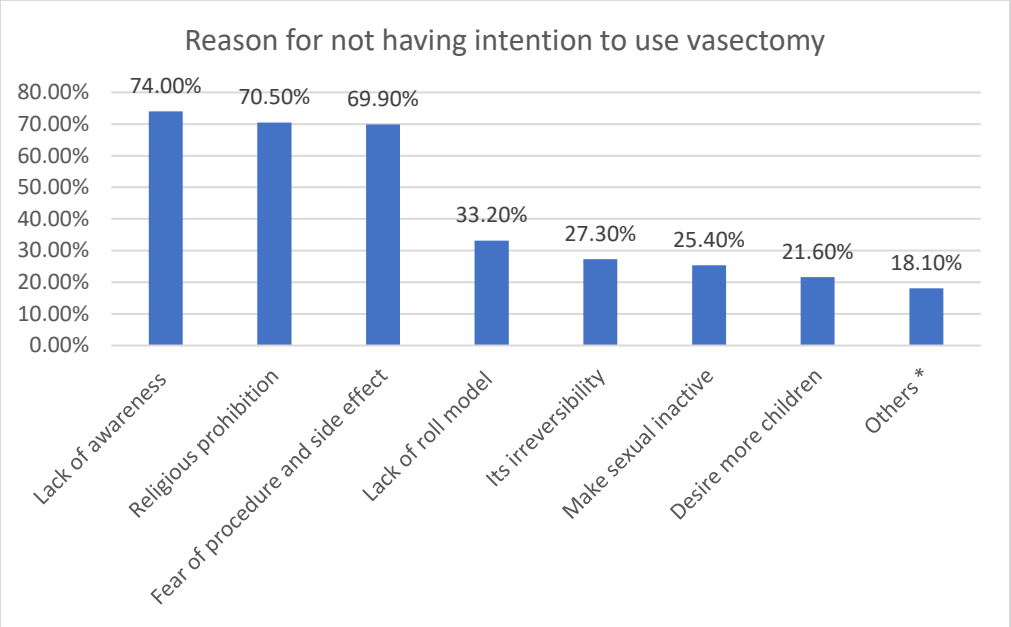



Figure: - 4 Intention of study participant to use vasectomy as a means of future contraceptive method in Debre Tabor town North West Ethiopia, March 05-April 15, 2019(N=397).

In this study 80.4% of the participants had no intention to use vasectomy as a contraceptive method for their future life due to many reasons. Among this lack of awareness (74%) was the major reason followed by religious prohibition (70.5%) (figure 5).




* unavailability of service, lack of trained provider, partner opposition

Figure: - 5 Percentage of study participants reason for not to use vasectomy for future life in Debre Tabor North West Ethiopia March 05-April 15 2019, (N=319).

### 4.5. Factors affecting intention to use vasectomy among study participants

In binary logistic regression age, participant wife occupation, duration of married year, number of living children, level of knowledge and attitude of participants were significantly associated with intention to use vasectomy. But in multivariable logistic regression analysis by using backward likelihood stepwise mothed age (30-39) years, number of living children, level of knowledge, and attitude were significantly associated with intention of married men to use vasectomy (table 7).

Participants whose age group found between 30-39 years were 3.2 times more likely to have intention to use vasectomy [AOR=3.2, (95% CI: 1.19-8.86)] as compared to Participants whose age lies below 30 years. Those married men who had more than 3 living children were 2.5 times higher the odds of intention to use vasectomy, [AOR=2.5(95% CI:1.41-4.68)] as compared to men who had less than or equals to three living children.

More over study participants who had good knowledge about vasectomy were increased 3.4 times the odds of intention to use vasectomy [AOR= 3.4(95% CI:1.88-6.40)], than participants who had poor knowledge about vasectomy. As compared to married men who had negative attitude towards vasectomy married men with positive attitude had a higher odd of intention to use vasectomy [AOR=4.8(95%CI:2.61-8.80)].

Table: - 6 Bivariate and multivariable analysis of factors affecting intention of study participants to use vasectomy in Debre Tabor town North West Ethiopia March 05-April 15, 2019(N=397).

| Variables | | Intention of vasectomy | | COR (95%CI) | AOR (95%CI) | P-value |
|---|---|---|---|---|---|---|
| | | Yes | No | | | |
| Age | 20-29 years | 6(10.5) | 51(89.5) | 1 | 1 | |
| | 30-39 years | 55(27.5) | 145(72.5) | **3.224(1.309-7.938)** | **3.251(1.192-8.863)** | **0.021*** |
| | 40-49 years | 12(10.1) | 107(89.9) | 0.953(0.339-2.684) | 0.861(0.274-2.702) | 0.797 |
| | ≥50 years | 5(23.8) | 16(76.2) | 2.656(0.715-9.874) | 3.216(0.73714.028) | 0.120 |
| Educational status | | | | | | |
| | No formal education | 5(13.9) | 31(86.1) | 1 | 1 | |
| | Primary | 6(16.7) | 30(83.3) | 1.24(0.342-4.498) | 0.99(0.237-4.13) | 0.989 |
| | Secondary | 5(6.8) | 68(93.2) | 0.456(0.123-1.690) | 0.35(0.084-1.449) | 0.148 |
| | College and above | 62(24.6) | 190(75.4) | 2.023(0.754-5.429) | 1.142(0.373-3.492) | 0.816 |
| Wife education | | | | | | |
| | No formal education | 9(16.1) | 47(83.9) | 1 | 1 | |
| | Primary | 7(10.8) | 58(89.2) | 0.63(0.218-1.819) | 0.54(0.141-2.063) | 0.368 |
| | Secondary | 16(17.0) | 78(83.0) | 1.071(0.438-2.617) | 0.996(0.279-3.553) | 0.995 |
| | College and above | 46(25.3) | 136(74.7) | 1.766(0.804-3.883) | 1.149(0.299-4.412) | 0.84 |
| Occupation | | | | | | |
| | Civil servant | 33(19.1) | 140(80.9) | 0.354(0.118-1.063) | 0.218(0.042-1.128) | 0.069 |
| | Private business | 31(18.9) | 133(81.1) | 0.350(0.116-1.055) | 0.257(0.049-1.337) | 0.106 |
| | Employed at private sector | 8(17.8) | 37(82.2) | 0.324(0.090-1.172) | 0.293(0.049-1.768) | 0.181 |
| | Daily laborer | 6(40.0) | 9(60.0) | 1 | 1 | |
| Wife occupation | | | | | | |
| | House wife | 27(17.2) | 130(82.8) | 1 | 1 | |
| | Civil servant | 28(24.8) | 85(75.2) | 1.586(0.875-2.876) | 1.067(0.488-2.332) | 0.870 |
| | Private business | 12(13.0) | 80(87.0) | 0.722(0.346-1.506) | 0.499(0.208-1.199) | 0.120 |
| | Employed at private sector | 5(23.8) | 16(76.2) | 1.505(0.508-4.459) | 1.643(0.425-6.349) | 0.472 |
| | Student | 6(42.9) | 8(57.1) | **3.611(1.159-11.25)** | 0.858(0.180-4.082) | 0.847 |
| Duration of married | | | | | | |
| | ≤ 5 yrs | 12(12.6) | 83(87.4) | 1 | 1 | |
| | 6-10 yrs | 31(19.7) | 126(80.3) | 1.702(0.827-3.502) | 1.007(0.422-2.405) | 0.987 |
| | 11-15 yrs | 19(24.7) | 58(75.3) | **2.266(1.021-5.026)** | 1.161(0.371-3.635) | 0.798 |
| | ≥ 16 yrs | 16(23.5) | 52(76.5) | 2.128(0.933-4.856) | 2.124(0.614-7.342) | 0.234 |
| No of living children | ≤ 3 | 36(14.8) | 207(85.2) | 1 | 1 | |
| | **>3** | 42(27.3) | 112(72.7) | 2.156(1.306-3.559) | 2.575(1.416-4.684) | **0.002*** |
| Discus with partner on FP | | | | | | |
| | No | 5(11.9) | 1 | 1 | 1 | |
| | Yes | 73(20.6) | 282(79.4) | 1.916(0.727-5.047) | 1.77(0.573-5.469) | 0.321 |
| knowledge | poor | 25(10.1) | 222(89.9) | **1** | **1** | |
| | good | 53(35.3) | 97(64.7) | **4.852(2.850-8.260)** | **3.473(1.884-6.404)** | **0.001*** |
| Attitude | Negative | 24(9.8) | 221(90.2) | **1** | **1** | |
| | Positive | 54(35.5) | 98(64.5) | **5.074(2.967-8.676)** | **4.801(2.617-8.807)** | **0.001*** |

* P-value < 0.05 considered as statistically significant

## 5.Discussion

Within the sphere of family planning, vasectomy is very often ignored, despite being one of the safest, simplest, and highly effective and least expensive contraceptive methods(5).

Our study finding showed that 19.6% of participants had intention to use vasectomy for their future life with a range from 15.6%-23.4% at 95% CI. The result of this finding was in lined with the cross sectional studies conducted in India as they revealed that 21.4%,and 21% of the participants had intention to use vasectomy (22, 23) respectively.

The intention of married men to use vasectomy in this study was also in agreement with community based cross sectional study conducted in Bangalore rural population (17%)(26),and comparable with Indonesia (16.6%)(21). In addition; our study finding was in lined with study conducted in four regions of Ethiopia (Oromia, Amhara, SNNP and Tigray)(18.1%)(18).The possible explanation may be due to the short time interval between the studies, since the previous study was done in recent time(2017) and similarity in socio demographic characteristics may also another probable reason.

But the finding of this study was lower than cross sectional studies conducted in Kenya and Rwanda (27.5%,26.6%) (3, 28) respectively. The discrepancy may be due to difference in number of children the participants had since only 38.8% of participants in this study had more than 3 children but in the comparable studies (76.6%, and 63.3%) of participant had more than 3 children respectively. In addition, only 38.3% of participant in this study had positive attitude but in Rwanda 60 % of participant had positive attitude towards vasectomy which had a direct relationship with their intention.

According to our study the intention to use vasectomy as a FP method was also lower than institutional based cross sectional study conducted in east Wollega zone of Oromia region (30%)(29). The discrepancy may be due to difference in study setting and participants, the current study was community based but the contradict study was done in health institution and the participants were men who were visiting health institutions together with their partner for FP service, maternity and child health unit, which has a positive impact on their intention by increasing their awareness about the method.

On the contrary the finding of our study was higher than study conducted in the other parts of India (11%)(24).The variation may be explained due to difference in marital status of study participants, in the current study only married men were participated but in the previous study the participants were both married and unmarried men which had significant difference in their intention since thinking about vasectomy without being married is not ideal and visible.

In addition to estimating the prevalence of intention to use vasectomy this study was tried to determined factors associated with intention to use it.

The result of this study revealed that being in the age category of 30-39 year had an increased intention to use vasectomy as a contraceptive method. Likewise, studies conducted in India and Nepal showed that there is a significant association between participants age(30-39 years) with intention of vasectomy(24, 27). Another study which was conducted in Indonesia also showed that age of the respondent which was found between 30-39 had a significant relationship with intention of vasectomy(30).

The possible explanation for this finding may be participants in this age category (30-39) might have easy access of information and educated from the older once, since as the educational status increase the knowledge might also scale up in the same fashion which had a positive impact on intention. And they may have steady jobs, a greater number of living children as well as stable family life from younger once.

According to our study finding having more than three living children was the second predictor variable as it stated that having more than three children increase the intention of participants to use vasectomy. Similarly studies conducted in two different settings of Indonesia stated that as the number of living children increase the intention to use vasectomy was also increased linearly(21, 30)..

Likewise, research conducted in India also concluded that number of living children was a significant predictor for intention of vasectomy(31). The finding of this result also supported by studies performed in Kenya and Rwanda as they revealed that number of living children was a significant factor for intention of vasectomy(3, 28). The possible reason may be men who had a smaller number of children might have a high future fertility desire and their intention to use

contraceptive method might be low. In other words, since vasectomy is permanent and irreversible it is a choice of contraceptive method for those men's who had more children.

The result of this study also showed that there was a positive relationship between knowledge of vasectomy and its acceptance by married men, since it revealed that participants who had good knowledge about vasectomy had a higher intention to use it. The finding was in lined with cross sectional study conducted in Nigeria as it implies that knowledge plays an important role for intention of vasectomy by increasing the awareness of individuals (35). Since lack of knowledge is the biggest hurdle in intention of contraceptives, having good knowledge about vasectomy used to know the importance of it from other methods, avoids different misconceptions, change the behavior and positively affect the attitude of men towards vasectomy.

Another important significant finding in this study was that attitude of men towards vasectomy. Men who had positive attitude towards vasectomy had increased intention to use it from that of men who had negative attitude The finding of this study was in agreement with study finding from Nepal which declare that men attitude towards vasectomy is a major significant factor that determine the intention of participant to use it(27).

This finding was also supported by cross sectional studies conducted in two different parts of Indonesia as they conclude that men attitude towards vasectomy was significantly associated with their intention to accept it (21, 30). Since attitude is a key factor that influence the intention, men with positive attitude towards vasectomy are better able to use it and share responsibilities in FP practice with their partner. And also, further reason may be when the individual had positive attitude, they can break myths and misconception that were negatively affect the intention like that of vasectomy is similar with castration.

## 6. Limitation of the study

Due to time and logistic constraints this study used only quantitative approach which could not address the “why” questions in detail, and social desirability bias might also another limitation of this study.

## 7. Conclusion

In conclusion, the prevalence of intention of married men to use vasectomy for future life was in lined with the finding of survey done in four regions of Ethiopia (Amhara, Oromia, SNNP and Tigray). Age (30-39) years, having more than three living children, having good knowledge and positive attitude towards vasectomy were significantly associated with intention to use vasectomy for future life as a contraceptive method.

## 8. Recommendation

In this study, level of knowledge and attitude were an important predictor of intention to use vasectomy. Therefore, improving level of knowledge and attitude towards vasectomy is an essential weapon to scale up intention of men to use vasectomy.

**At policy level**

- Prepare strategic plan to fill knowledge gap of men about vasectomy.
- Invest more efforts in convincing negative attitude that affect intention of men towards vasectomy.

**At health system levels**

- prepare health education program to increase men level of knowledge about vasectomy
- prepare different workshops to identify misconceptions that may negatively affect attitude of men towards vasectomy.

**At house hold/community levels**

- Engage men who had good knowledge and positive attitude towards vasectomy as advocates for scaling up intention of men towards vasectomy.
- Encourage younger men to use vasectomy for their future life.

**For further researcher**

- As this research could not cover all existing vasectomy issues, we recommend further researcher to come up with additional and detail findings especially on qualitative aspect.

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# 10. Appendixes

*Appendix1 Information sheet*

Title of the Research: intention to use vasectomy and its associated factors among married men in Debre Tabor North West Ethiopia, 2018/19.

Name of Principal Investigator: Alemu Degu

Name of the Organization: Bahir Dar University, Department of Midwifery

Name of the Sponsor: Bahir Dar University

Information Sheet and Consent Form Prepared for participants who have included in the study during data collection.

Introduction

This information sheet and consent form is prepared with the aim of assessing intention to use vasectomy and its associated factors among married men in Debre Tabor town North West Ethiopia, 2018/19.

Background: - Family planning has multiple benefits for the child, for the mother, for the family, and for the community as a whole. Even though Family planning has many advantages, male involvement in family planning service is limited due to many reasons.

Purpose of the Research Project: The aim of this study is to assess intention of men to use vasectomy and its associated factors in Debre Tabor town North West Ethiopia, 2018/19. The results of this study will be used to design appropriate intervention programs to scale up the intention of men towards vasectomy and to increase their participation of FP in Amhara Region, North West Ethiopia.

Procedure: The study involves married men who had fulfilled the criteria of intention to use vasectomy and its associated factors among married men in Debre Tabor town North West Ethiopia from March 05 to April 15 2019. You were selected to be one of the study participants by chance if you will be willing to take part in this study and we kindly invite you to took part in this study. If you will be volunteer to participate, we will so happy and we need you to clearly

understand the aim of this study and show your agreement. Finally, you will kindly be requested to give your genuine response in the interview.

Benefits, Risk and /or Discomfort

By participating in this research project, you may feel some discomfort in wasting your time (a maximum of 20 minutes).

However, your participation is definitely important to identify intention to use vasectomy and its associated factors among married men in Debre Tabor town North West Ethiopia, 2018.There is no risk or direct benefit in participating in this research project.

Incentives/Payments for Participating

You will not be provided any incentives or remuneration for participating in the study.

Confidentiality

The information collected from you should be kept confidential and stored in a file, without your name by assigning a code number to it. Hence, no report of the study ever identifies you.

Right to Refusal or Withdraw

You have the full right to refuse from participating in this research. You can also withdraw from the study at any stage you wish.

Person to contact

Name: Alemu Degu

Tele: (+251920770887/+251947475435

E-mail: degualem53@gmail.com

*Appendix 2 Consent form*

Good morning/afternoon my name is _____I am working as data collector in study conducted by Alemu Degu Midwifery Department, School of Health Sciences, College of Medicine and Health Sciences of Bahir Dar university for second degree fulfillment. The title of the study is intention to use vasectomy and its associated factors among married men in Debre Tabor Northwest Ethiopia. I am interviewing clients on intention to use vasectomy and associated factors in order to collect information necessary for developing appropriate strategies to increase male involvement in FP, so that, married men like you will 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 about15-20 minutes. There can be more than one answer as given on the alternative choices or opinions. Your name or any identifying information will 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 will 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: -Alemu Degu phone no: -0920770887

email: -degualemu53@gmail.com

Would you participate in our study? Yes --------No------

Signature of participant----------

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

Name of data collector----------

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

Questionnaire code---------

*Appendix 3 English version questionnaire*

**Part I: socio-demographic characteristics**

| No | Questions | Categories & responses | Skip to |
|---|---|---|---|
| 101 | Your age? | ----------year | |
| 102 | Ethnicity | 1.Amhara<br>2.Oromo<br>3.Tigray<br>4. Gurage<br>5. Other(specify)---------- | |
| 103 | your religion? | 1.Orthodox<br>2. Protestant<br>3.Catholic<br>4. Muslim<br>5. Other (specify) | |
| 104 | Your education level | 1. unable to read and write<br>2. Read and write<br>3 primary (1-8)<br>4 secondary (9-12)<br>5.college and above | |
| 105 | Wife educational level | 1. unable to read and write<br>2. Read and write<br>3 primary (1-8)<br>4 secondary (9-12)<br>5.College and above | |
| 106 | Your occupation | 1. Civil servant<br>2. Has private business<br>3. Employed in private sector<br>4.Daily laborer<br>5.. others (specify)------- | |
| 107 | Wife occupation | 1.house wife<br>2.Civil servant<br>3. Has private business<br>4. Employed in private sector<br>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----------<br>Female---------- | |
| 203 | Do you discuss about family planning methods with your partner | 1.Yes<br>2.No | |

| | | | |
|---|---|---|---|
| 304 | Do you get emotional support from your partner to use FP. | 1.yes<br>2.no | |
| 305 | Do you complete your family size | 1.yes<br>2 no | |
| 206 | If no future desire number of children | Male----------<br>Female---------- | |
| **Part III: knowledge factor questionnaires** | | | |
| No | Questionnaire | Categories and responses | Skip to |
| 301 | Do you know that vasectomy is a contraceptive method by cutting and ligating Vass deference? | 1.Yes<br>2. No | |
| 302 | Do you know that vasectomy is permanent and irreversible | 1.Yes<br>2.No | |
| 303 | Do you know that vasectomy requires minor surgical procedure? | 1.Yes<br>2.No | |
| 304 | Do you know that seminal fluid during ejaculation are present after vasectomy? | 1.Yes<br>2.No | |
| 305 | Do you know how vasectomy works | 1.Yes<br>2.No | |
| 306 | Do you know that vasectomy is done in Ethiopia without any charge? | 1.Yes<br>2.No | |
| 307 | Do you know where vasectomy/male sterilization service is available? | 1. Yes<br>2. No | |
| 308 | have you heard that who can use vasectomy as a family planning method option? | 1.Yes<br>2.No | |
| 309 | If yes for Q308 who are they | 1.Any married men of reproductive group<br>2.marred men who complete their family size<br>3.others (specify)---------- | |
| **Part IV Attitude related questionnaires** | | | |
| No | Question | Category and response | |
| 401 | FP is a responsibility of women | 1.Agree<br>2.Neutral<br>3.Disagree | |
| 402 | Do belief that vasectomy negatively affect sexual performance/desire | 1.Agree<br>2.Neutral<br>3.Disagree | |
| 403 | Vasectomy has side effects | 1.Agree | |

| | | | |
|---|---|---|---|
| | | 2.Neutral<br>3.Disagree | |
| 404 | Vasectomy is not acceptable in my religion | 1.Agree<br>2.Neutral<br>3.Disagree | |
| 405 | Vasectomy is culturally unacceptable | 1.Agree<br>2.Nutral<br>3.Disagree | |
| 406 | I am uncertain for the future pregnancy may be happen after vasectomy | 1.Agree<br>2.Neutral<br>3.Disagree | |
| 407 | Vasectomy is similar with castration | 1.Agree<br>2.Neutral<br>3.Disagree | |
| 408 | vasectomy can cause physical weakness, cannot do hard work | 1.Agree<br>2.Neutral<br>3.Disagree | |
| 409 | vasectomy can ashamed the individual in the community | 1.Agree<br>2.Neutal<br>3.Disagree | |
| **Part VI Intention questionnaires** | | | |
| No | Question | Categories and response | Skip to |
| 501 | Do you have intention to use vasectomy for future? | 1.Yes<br>2.No | If no skip to Q.503 |
| 502 | If yes when | 1.within 5 years<br>2.within 5-10 years<br>3.within 10-15 years<br>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<br>2.Service is not available<br>3.Need more children<br>4.Fear of procedure<br>5.Fear of side effect<br>6. its irreversibility<br>7.Make sexually inactive<br>8.partners opposition<br>9.Not allowed religiously<br>10.Lack of trained providers<br>11.lack of roll model<br>12.Other(specify)-------- | |

*Appendix 4 Amharic version questionnaire*

**በጥናቱ ለሚሳተፉ የስምምነት ዉል**

**ጤና ይስጥላኝ ስሜ----------ይባላል፡፡ በሚድዋይፈሪ ትምህርት ክፍል በህክምናና ጤና ሳይንስ ኮሌጅ ባህር ዳር ዩኒቨርስቲ ለሁለተኛ ዲግሪ ማሟያ በአለሙ ደጉ በሚሰራ ጥናት ዉስጥ እንደ መረጃ ሰብሳቢነት እየሰራሁ እገኛለሁ፡፡ የጥናቱ ርዕስ ያገቡ ወንዶች ስለ ወንድ ዘለቄታዊ የወሊድ መቆጣጠሪያ ዘዴ (ቅንጣሲቢይ) ያላቸዉን የመጠቀም ፍላጎት እና ተጓዳኝ ጉዳዮች ዙሪያ የሚያጠነጥን ነዉ፡፡ስለሆነም ጥናቱ እንደ እርስዉ ያሉ ያገቡ ወንዶች ተገቢዉን ግንዛቤ እንዲያገኙ እና ዘለቄታዊ የወሊድ መቆጣጠሪያ ዘዴ (ቅንጣሲቢይን) ለወደፊት ህይወታቸዉ የእርግዝና መቆጣጠሪያ ዘዴ አድርገዉ ለመጠቀም እንዲመርጡ ያስችላቸዋል፡፡ ይህንን ዓላማ ለማሳካት እርስዎ በቃለ መጠይቁ ላይ እንዲሳተፉ በትህትናና በአክብሮት በእድል ተመርጠዋል፡፡ ቃለ መጠይቁ ከ 15-20 ደቂቃዎችን ሊወስድ ይችላል፡፡ አንዳንድ ጥያቄዎች ከአንድ በላይ መልስ ሊኖራቸዉ ይችላል፡፡ የእርስዎን ስም ወይም ማንነት የሚገልጽ መረጃ በምንም መልኩ አይመዘገብም፡፡ ያልተመችዎትን ጥያቄ አለመመለስ እንዲሁም ቃለ መጠይቁን በማንኛዉም ጊዜ ማቆም ይችላሉ፡፡ ነገር ግን እርስዎ የሚሰጡት መረጃ መንግስት በጤናዉ ዘርፍ በቤተሰብ ምጣኔ ዙሪያ የወንዶችን ተሳትፎ ለማሳደግ የሚረዱ ስልቶችንና ስትራቴጅዎችን ለመንደፍ ስለሚረዳ በጣም ጠቃሚና አስፈላጊ ነዉ፡፡ ምክንያቱም መንግስት በጤናዉ ዘርፍ በቤተሰብ ምጣኔ ዙሪያ ወንዶች ያላቸዉን ተሳትፎ ለማሳደግ የሚረዳ ስልት እንዲነድፍ የራሱን የሆነ አስተዋጽዎ ስለሚያበረክት ነዉ፡፡ ስለጥናቱ ጥያቄ ካለዎት መጠየቅ ይችላሉ፡፡**

**ጥናቱን የሚያካሄደዉ ሰዉ ስም፡- አለሙ ደጉ ስልክ:- 0920770887**

**ኢሜል:- degualemu53@gmail.com**

**በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት 1. አዎ-------- 2. አይደለሁም-----**

**የተሳታፊዎች ፊርማ ---------- ቀን -----/-------/----------**

**መረጃዉን የሰበሰበዉ ሰዉ ስም፡---------- ፊርማ ----------ቀን ----/---/-----**

**የጥያቄ ኮድ----------**

**ክፍል 1፡- ማህበራዊና ኢኮኖሚያዊ ጉዳዮችን የሚዳስሱ መጠይቆች**

| ተ.ቁ | ጥያቄዎች | ምድቦች እና ምላሾች | ወደ ... ይለፉ |
|---|---|---|---|
| 101 | እድሜ? | ----------አመት | |
| 102 | ብሔር | 1. አማራ<br>2.ኦሮሞ<br>3. ትግሬ<br>4.ጉራጌ<br>5.ሌላ(ይግለጹ)------- | |
| 103 | ሃይማኖት | 1. ኦርቶዶክስ<br>2. ፕሮቴስታንት<br>3. ካቶሊክ<br>4. ሙስሊም<br>5. ሌላ (ይግለጹ)-------- | |
| 104 | የትምህርት ደረጃዎ | 1.ማንበብና መጣፍ አልችልም<br>2.ማንበብ እና መጻፍ<br>3 .የመጀመሪያ ደረጃ<br>4 .ሁለተኛ ደረጃ<br>5.ኮሌጅ እና ከዚያ በላይ | |
| 105 | የባለቤትዎ ትምህርት ደረጃ | 1.ማንበብና መጣፍ አትችልም<br>2.ማንበብ እና<br>መጻፍ ትችላለሁ<br>3.የመጀመሪያደረጃ (1-8)<br>4.ሁለተኛ ደረጃ(9-12<br>5.ኮሌጅ እና ከዚያ በላይ | |
| 106 | ሥራ | 1. የመንግስት ሰራተኛ<br>2. የግል ቢዝነስ<br>3. የግል ተቋም ዉስጥ ሰራተኛ<br>4.የቀን ሰራተኛ<br>5 .ሌላ( ይግለጹ) ------- | |
| 107 | የባለቤትዎ ስራ | 1.የቤት እመቤት<br>1. የመንግስት ሰራተኛ<br>3. የግል ቢዝነስ<br>4.የግል ተቋም ዉስጥ ሰራተኛ<br>5.ሌላ( ይግለጹ) ------- | |
| **ክፍል 2:--ከስነ-ተዋልዶ ጤና ጋር የተያያዙ መጠይቆች** | | | |
| **ተ.ቁ** | ጥያቄዎች | ምድቦች እና ምላሾች | ወደ------ይለፉ |
| 201 | ከባለቤትዎ ጋር ስንት አመት አብረዉ ኖረዋል | ----------አመት | |
| 202 | የልጆችብዛት | 1.ወንድ--------<br>2.ሴት---------- | |
| 203 | ከባለቤትዎ ጋር ስለቤተሰብ ምጣኔ ዉይይት አድርገዉ ያዉቃሉ | 1.አዎ<br>2. አናደርግም | |
| 204 | የቤተሰብ ምጣኔ እንዲጠቀሙ ከባለቤትዎ እገዛ ተደርጎልዎት ያዉቃል | | |

| | | | |
|---|---|---|---|
| 204 | የሚፈልጓቸዉን ልጆች ብዛት ወልደዋል ጨርሰዋል | 1. አዎ<br>2. አልጨረስኩም | |
| 205 | አልጨረስኩም ካሉ መዉለድ የሚፈልጓቸዉ ልጆች? | ወንድ-------<br>ሴት------ | |
| **ክፍል 3: የእውቀት ሁኔታ የሚዳስሱ መጠይቆች** | | | |
| ተ.ቁ | ጥያቄዎች | ምድቦችና ምላሾች | ወደ----ይለፉ |
| 301 | ዘለቄታዊ የወንድ የቤተሰብ ምጣኔ ዘዴ (ቅንጣሲቢይ) የዘር ማመላለሻ ቱቦን ቆርጦ መቋመር መሆኑን ያዉቃሉ ወይ? | 1.አዎ<br>2.አላዉቅም | |
| 302 | ዘለቄታዊ የሆነ የወንድ የወሊድ መቆጣጠሪያ ዘዴ ሊመለስ የማይችል መሆኑን ያውቃሉ? | 1.አዎ<br>2.አላዉቅም | |
| 303 | ዘለቄታዊ የሆነ የወንድ የወሊድ መቆጣጠሪያ ዘዴ አነስተኛ መጠን ያለው ቀዶ ጥገና እንደሚያስፈልገዉ ያውቃሉ? | 1.አዎ<br>2.አላዉቅም | |
| 304 | ዘለቄታዊ የሆነ የወንድ የወሊድ መቆጣጠሪያ ዘዴ ከተሰራ በኋላ የዘር ፍሬ የሌለበት ፈሳሽ መኖሩን ያዉቃሉ? | 1.አዎ<br>2.አላዉቅም | |
| 305 | ዘለቄታዊ የሆነ የወንድ የወሊድ መቆጣጠሪያ ዘዴ እንዴት አድርጎ ወሊድን እንደሚቆጣጠር ያዉቃሉ | 1.አዎ<br>2.አላዉቅም | |
| 306 | ቀዶ ጥገናዉ በኢትዮጵያ ያለ ምንም ክፍያ እንደሚካሄድ ያውቃሉ? | 1.አዎ<br>2.አላዉቅም | |
| 307 | ዘለቄታዊ የሆነ የወንድ የወሊድ መቆጣጠሪያ ዘዴ አገልግሎት የት እንደሚገኝ ያውቃሉ? | 1. አዎ<br>2. አላዉቅም | |
| 308 | በቤተሰብ ዕቅድ ዘዴ አማራጭ ዉስጥ ዘለቄታዊ የሆነ የወንድ ወሊድ መቆጣጠሪያ ዘዴ መጠቀም የሚችሉ እነማን እንደሆኑ ያዉቃሉ | 1.አዎ<br>2.አላዉቅም | |
| 309 | አዎ ከሆነ መልስአ እነማን ናቸዉ | 1. ሁሉም ያገቡ ወንድ<br>2.የሚፈልጓቸዉን የልጆች ብዛት የወለዱ ግለሰቦች<br>3.ሌላ (ይግለጹ)--------- | |
| **ክፍል 4 ከአመለካከት ጋር የተያያዙ ጥያቄዎች** | | | |
| ተ.ቁ | ጥያቄዎች | ምድቦችና ምላሾች | ወደ----ይለፉ |
| 401 | የቤተሰብ ምጣኔ የሰቶች ተግባር ብቻ ነዉ | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 402 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ የወሲብ አቅምን/ፍላጎትን ይቀንሳል | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 403 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ የጎንዮሽ ጉዳት አለዉ | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 404 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ በእኛ ሐይማኖት ተቀባይነት የለዉም | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |

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| 405 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ በእኛ ባህል ተቀባይነት የለዉም | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 406 | ከዘለቄታዊ የወንድ ወሊድ መቆጣጠሪያ በኋላ እርግዝና ሊከሰት ስለሚችል ስለ ወደ ፊቱ እርግጠኛ አይደለሁም | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 407 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ ከማምከን ጋር ተመሳሳይ ነዉ | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 408 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ የአካላዊ ድክመት ያመጣል | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| 409 | ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ በማህበረሰቡ ዘንድ ያሳፍራል | 1.እስማማለሁ<br>2.ገለልተኛ<br>3.አልስማማም | |
| **ክፍል 5 ከፍላጎት ጋር የተያያዙ ጥያቄዎች** | | | |
| ተ፣ቁ | ጥያቄዎች | ምድቦችና ምላሾች | ወደ----ይለፉ |
| 501 | ለወደፊት ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴን ለመጠቀም ፍላጎቱ አልዎት | 1.አዎ<br>2.የለኝም | የለኝም ካሉ ወደ ጥ.503 ይለፉ |
| 502 | አዎ ከሆነ መቸ | 1.በቀጣይ 5 አመታት<br>2.ከ 5-10 አመታት ባሉት<br>3.ከ 10-15 ዓመት ባሉት<br>4.ከ 15 አመት በኋላ | |
| 503 | ለ ጥያቄ ቁጥር 501 መልስዎ የለኝም ከሆነ ለምን? (ከአንድ በላይ መመለስ ይችላሉ) | 1. ግንዛቤ ስለሌለኝ<br>2. አገልግሎ ተደራሽ ስላልሆነ<br>3. ብዙ ልጅ ስለምፈልግ<br>4.የአሰራር ሂደቱ ስለሚያስፈራ እና የጎንዮሽ ጉዳት ስላለዉ<br>5. ዘለቄታዊና የማይመለስ መሆኑ<br>6.ስንፈተ ወሲብ ስለሚያመጣ<br>7. ከባለቤቴ ፈቃድ ስለማላገኝ<br>8. ሐይማኖት ስለማይፈቅድ<br>9. የሰለጠነ ባለሙያ ስለሌለ<br>10.አርዓያ የሚሆን ስለሌለ<br>11. ሌላ(ይግለጹ)--------- | |

## *Appendix 5 Declaration*

I, the undersigned, MSc student declare that this thesis is my original work in partial fulfillment of the requirement of the degree of Master in clinical Midwifery and has not been presented for a degree in this and any other university. All the sources of materials used for this proposal and all people and institutions who gave support for this work were fully acknowledged.

Name----------

Date ----------

Signature ----------

### *Appendix 6 Assurance of investigator*

The undersigned agrees to accept responsibility for the scientific, ethical and technical conduct of the research project and for provision of required progress reports as per terms and conditions of the research and publications office of the Bahir Dar University.

Name of the principal investigator: Alemu Degu

Date: ----------/-------/2019

Signature: _____

Approval of the advisors

Advisors

| Name | Signature | Date |
|---|---|---|
| 1. _____ | _____ | _____ |
| 2. _____ | _____ | _____ |