Midwifery

Thesis and Dissertations

2019-06

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

Alemu, Degu

http://ir.bdu.edu.et/handle/123456789/13917 Downloaded from DSpace Repository, DSpace Institution's institutional repository



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

JUNE, 2019

BAHIR DAR ETHIOPIA

BAHIRDAR UNIVERSITY

COLLEGE OF MEDICINE AND HEALTH SCIENCES

SCHOOL OF HEALTH SCIENCS

DEPARTMENT OF MIDWIFERY

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.

FULL TITLE	INTENTION TO USE VASECTOMY AND ITS ASSOCIATEDFACTORS AMONG MARRIED MEN IN DEBRE TABORTOWN NORTH WEST ETHIOPIA 2019.COMMUNITYBASED CROSS SECTIONAL STUDY.		
INVESTIGATOR	ALEMU DEGU (BSC, MSC CANDIDATE IN CLINICAL MIDWIFERY) CELL PHONE: - +251 920770887 /+251947475435 E-MAIL: <u>-degualemu53@gmail.com</u>		
ADVISORS	 1.MR. FENTAHUN YENEALEM (BSC, MSC IN CLINICAL MIDWIFERY) CELL PHONE: - +251921281333 E-MAIL: -yenefenta84@gmail.com 2. MR. KIHNETU GELAYE (BSC, MSC IN CLINICAL MIDWIFERY) CELL PHONE: -+251910333145 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

Acknowledgment

Firstly, I would like to forward my acknowledgement towards Bahir Dar University College of Medicine and Health Sciences School of Health Science Department of Midwifery for giving the opportunity to did this research thesis. Secondly, I extend my heart full gratitude to Mr.Fentahun Yenealem (BSc, MSc) and Mr.Kihnetu Gelaye (BSc, MSc) for their support and guidance from the proposal development up to this. In addition, I also convey a special thanks to town administration of Debre Tabor for giving the necessary information.

The last but not the least I want to say thank you for data collectors, supervisors, study participants and all stake holders who took parts in this study.

Table of content

Table of Contents Acknowledgment	I
Table of content	
List of Figures	IV
Abbreviations	
Abstract	VI
1. Introduction	1
1.1 Background	1
1.2 Statement of the problem	2
1.3 Literature review	4
1.4Justification	9
2. Objectives	
2.1 General objective	
2.2 Specific objectives	
3 Methods	11
3.1. Study design and period	
3.2. Study area:	11
3.3. Population	
3.4. Inclusion and exclusion criteria	
3.5. Sample size determination	
3.6. Sampling technique and procedures	13
3.7. variables	15
3.8. Operational definition	15
3.9. Data collection procedures and data collection tools	16
3.10. Data quality management	16
3.11. Data Processing and Analysis	16
3.12. Ethical Considerations	17
3.13. Result dissemination	17
4. Result	
5.Discussion	25
6.Limitation of the study	
7.Conclusion	
8.Recommendation	
9. References	
10. Appendixes	

List of Tables

Table:- 1 Sample size calculation by using different independent variables for objective two
Table :- 2 Socio -demographic characteristics of study participants towards vasectomy in Debre town Tabor
North West Ethiopia March 05 - April 15, 2019(N=397)18
Table:-3 Reproductive characteristics of study participants towards vasectomy in Debre Tabor town North
West Ethiopia March 05 - April 15, 2019(N=397)
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)20
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)21
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)24

List of Figures

Figure:- 1 Conceptual framework for the study adapted from different litratures
Figure :-2 Map of Debre Tabor Amhara region North West Ethiopia1
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
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)
Figure:- 5 Percentage of study participants reason for not to use vasectomy for future life in Debre Tabo
town North West Ethiopia March 05-April 15 2019, (N=319)23

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 $37.12(SD \pm 6.553)$ 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 noninclusion 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).

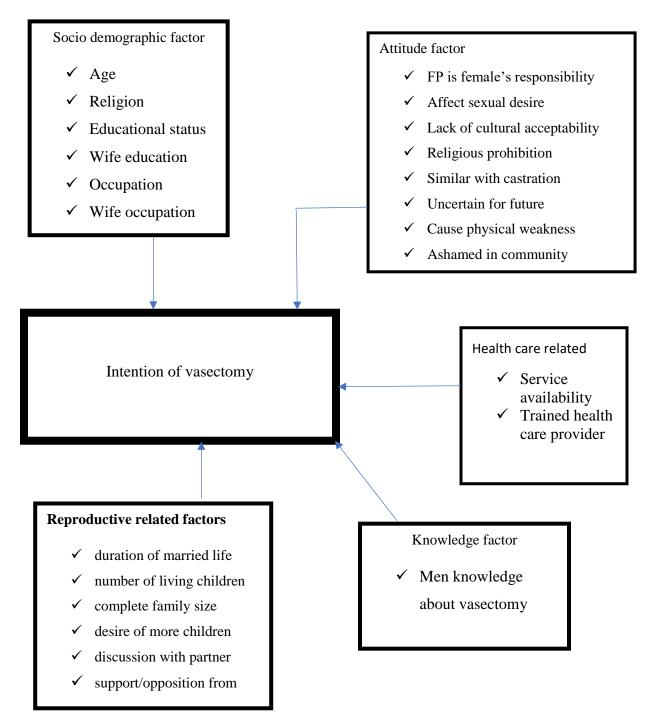


Figure: - 1 Conceptual framework for the study adapted from different literatures

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

- **4** To determine intention to use vasectomy among married men.
- **4** 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.

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

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

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.

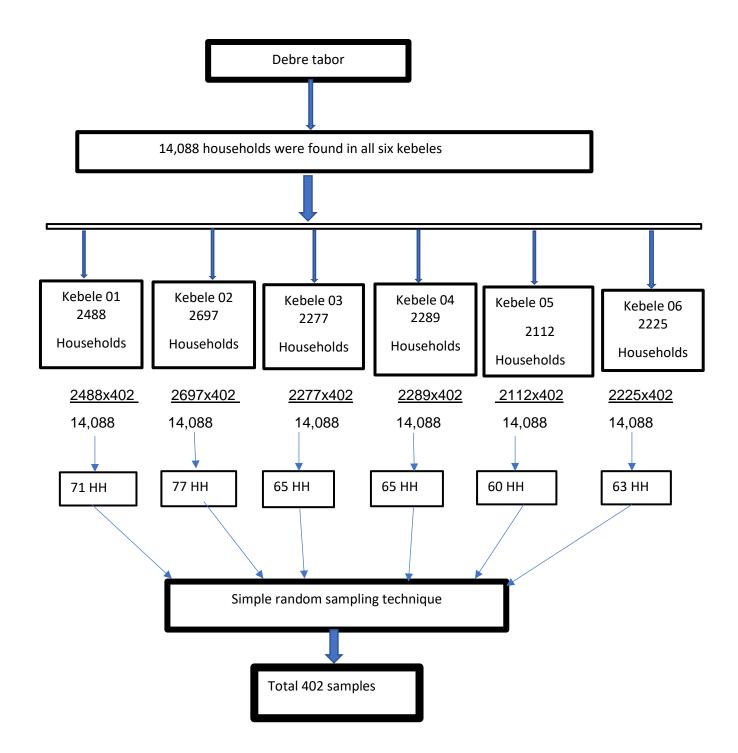


Figure: - 3 Schematic presentation of sampling procedure for study conducted on intention to use vasectomy and its associated factors among married men in Debre Tabor town North West Ethiopia 2019.

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 \pm 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).

Variables		Frequency	Percent
Age	20-29years 30-39 years 40-49 years ≥50 years Mean age ± SD	57 200 119 21	14.4 50.3 30.0 5.3 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

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

*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 $9.85(SD \pm 4.82)$ 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 \pm 2) children, 2(IQR \pm 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	\leq 5 years 6-10 years 11-15 years \geq 16 years mean ± (SD)	95 157 77 68	23.9 39.5 19.5 17.1 9.85±4.82
Number of living children	≤3 children >3 children mean ±(SD)	243 154	61.2 38.8 3.01±1.56
Discuss abort FP with partner	no yes	355 42	89.4 10.6
Get emotional support from par	tner no yes	102 295	25.7 74.3
Complete family size	no yes	116 281	29.2 70.8
Future desire n <u>o</u> of children(N=	281) ≤ 3 children >3 children mean±(SD)	203 78	72.2 27.8 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	Yes	221(55.5)	
ligating the vas deference	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	Yes	128(32.2)	
after vasectomy	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	Yes	130(32.7)	
charge	No	267(67.3)	
Do you know where vasectomy service is	Yes	171(43.1)	
available	No	226(59.9)	
Have you heard that who can use vasectomy	Yes	202(50.9)	
as a family planning?	No	195(49.1)	
If yes who are they(N=202)	All married men	33(16.3)	
	Married men who	169(83.7)	
	complete family size		
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	95(23.9)	222(55.9)	80(20.2)
performance/desire			
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	82(20.7%	204(51.3)	111(28)
vasectomy			
Vasectomy is similar with castration	132(33.2)	203(51.1)	62(15.7)
Vasectomy can cause physical weakness, cannot do hard	38(9.6)	247(62.2)	112(28.2)
work			
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).

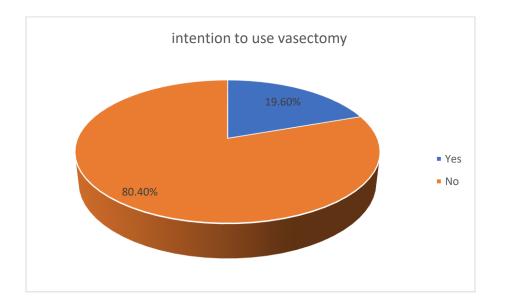
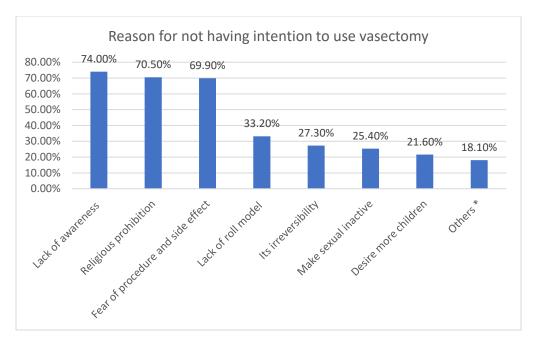


Figure: - 4 Intention of study participant to use vasectomy as a means of future contraceptive method in Debre Tabor town North West Ethiopia, March 05-April 15, 2019(N=397).

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)].

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

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).

* 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.

9. References

1. Adera Addis BT, *et al.* Assessment of the Role of Men in Family Planning Utilization at Edaga-Hamuse Town, Tigray, North Ethiopia. American Journal of Nursing Science. 2015;4(4):174-81.

2. Girum T, Shegaze M, Tariku Y. The Role of Currently Married Men in Family Planning and its Associated Factors in Agaro Town, South West Ethiopia. Annals of Medical and Health Sciences Research. 2017;7(6).

3. Odhiambo oc. Determinants of readiness to undergo vasectomy, a family planning method for men in busia county, kenya. 2014.

4. Jacobstein R. The Kindest Cut: Global Need to Increase Vasectomy Availability. IntraHealth International. 2015.

5. Perry B, Packer C, Chin-Quee D, Zan T, Shattuck D. Promoting vasectomy services in the Philippines. 2016.

6. Desmennu AT, Arulogun OS, Ajuwon AJ. Antecedent factors relating to the adoption of vasectomy among married men in peri-urban communities of Ibadan, Nigeria. International Journal of Nursing and Midwifery. 2016;8(6):47-54.

7. Ajuwon.A DA. Men's awareness of, Barriers to, and Intention to adopt Vasectomy among Married Men in Ibadan, Nigeria. https://wwwresearchgatenet/peblication/313512381. 2014.

8. Chaudhary BK, Wantamutte A, Sah JK. Knowledge, attitude and practices regarding family planning methods among married men in urban field practice area of Ramnagar urban health center. Belagavi-A cross-sectional study. 2015;8:212-9.

9. Kısa S, Savaş E, Zeyneloğlu S, Dönmez S. Opinions and attitudes about vasectomy of married couples living in Turkey. American journal of men's health. 2017;11(3):531-41.

10. Bureau PR. 2016 world population data sheet with a special focus on human needs and sustainable resources. www.world.pop.data.org. 2016.

11. Shattuck D, Perry B, Packer C, Quee DC. A review of 10 years of vasectomy programming and research in low-resource settings. Global Health: Science and Practice. 2016;4(4):647-60.

12. Admasu E, Chekol T, Shewamene Z, Eteffa Z. Factors affecting vasectomy acceptability in ethiopia. International Journal of Pharmaceutical Sciences and Research. 2013;4(4):1561.

13. Yalew SA, B.M. Zeleke, and A.S. Teferra. Demand for long acting contraceptive methods and associated factors among family planning service users, Northwest Ethiopia: a health facility based cross sectional study. BMC Res Notes. 2015;8.

14. Beguy DaBM. Patterns of fertility preferences and contraceptive behaviour over time: change and continuities among the urban poor in Nairobi, Kenya. Cult Health Sex, . 2015;17(9).

15. Ugaz J. I. MC, and et al. Regional trends in the use of short-acting and longacting contraception accessed through the private and public sectors. International Journal of Gynecology & Obstetrics. 2015;130.

16. Burke A, M. T. Mbizvo, and et al. Advancing Family Planning: Research Papers Selected from the Third International Conference on Family Planning, Addis Ababa, Ethiopia. International Journal of Gynecology & Obstetrics. 2015;12(15).

17. (MoH). FDRoEaMoH. Health Sector Transformation Plan, 2015 - 2020. october2015.

18. Ababa MSIEA. Knowledge, Attitudes and Practices (KAP) Survey, Permanent Methods of Family Planning in four regions of Ethiopia. USAID. 2017.

19. (CSA)Ethiopia. CSA. Ethiopia Demographic and Health Survey. 2016.

20. Kassa M, Abajobir AA, Gedefaw M. Level of male involvement and associated factors in family planning services utilization among married men in Debremarkos town, Northwest Ethiopia. BMC international health and human rights. 2014;14(1):33.

21. Musrizal YH. Vasectomy Intention among Married Males in Indonesia. J Health Res vol. 2015;29(3).

22. Gomes N , A S. Awareness and perception of and potential demand for vasectomy among married males. PJMS. 2014;4(1).

23. Ajeet S. RG, Shilpa H. and Jaydeep N. Denial Mode for Vasectomy among Married Men in Central India: Causes and Suggested Strategies. Journal of Psychology & Psychotherapy. 2013;3(4).

24. Aditya S, Pahwa P. Vasectomy: a study of attitudes, beliefs, knowledge and practices among literate men in Punjab, India. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2014;3(2).

25. Shettian N, Ajila D. Factors influencing the acceptance and awareness of permanent method of family planning. International Journal of Reproduction, Contraception, Obstetrics and Gynecology. 2018;7(3):875-8.

26. Madhukumar S, Pavithra M. A study about perceptions, attitude, and knowledge among men toward vasectomy in Bangalore rural population. Int J Med Sci Public Health. 2015;4(8):1066-70.

27Kishori Mahat Oranut Pacheun Pimsurang Taechaboonsermsak.Intention to Accept Vasectomy amon g Married Men in Kathmandu, Nepal Asia Journal of Public Health. 2010;1(1).

28. Odette M. Vasectomy Acceptability within Rwandan Family Planning Policy 2014.

29. Awie B. Men's knowledge and attitude towards vasectomy in east Wollega zone of Oromia region, Ethiopia 2014.

30. Yunitasari E, Pradanie R, Hardiansyah H. Determinants Factors of Vasectomy Method Selection. jurnal ners. 2017;12(1).

31. Valsangkar S, Sai SK, Bele SD, Bodhare TN. Predictors of no-scalpel vasectomy acceptance in Karimnagar district, Andhra Pradesh. Indian journal of urology: IJU: journal of the Urological Society of India. 2012;28(3):292.

32. Farrokh-Eslamlou H, Oshnouei S, Alinejad V. Novel restricted access to vasectomy in Iran: addressing changing trends in vasectomy clients' characteristics over 16 years in northwestern Iran. Contraception. 2015;92(5):488-93.

33. Chidinma un, campus e. Male involvement in family planning in some selected rural communities in enugu east local government area in enugu state, nigeria. 2014.

34. Roy Jacobstein MD M. Long-Acting and Permanent Methods Community of Practice Meeting on Vasectomy Washington DC Intra Health. 2015.

35. Tijani.K OR, Yahya.G, *etal* Attitudes and acceptance of nigerians towards vasectomy- a comparison of married men and women in lagos. East African Medical Journal. 2013;90(3).

36. Appiah S, Agyen JK, Garti I, Menlah A. Married Men and Vasectomy: A Focused Group Study in an Urban Community in Ghana. SAGE Open Nursing. 2018;4:2377960818790380.

37. Afari E. Community perceptions of male sterilization as a birth control method in the la dadekotopon municipality, accra. 2015.

38. Administration Dc. population size and number of household of debre tabor town. 2018.

39. Jemberie A. AGe. Educational status as determinant of men's knowledge about vasectomy in Dangila town administration, Amhara region, Northwest Ethiopia. Reproductive health. 2017;14(1):54.

40. Christiana O, Sonachi C, Chinomso N. Knowledge and attitude of men about vasectomy as a method of family planning among married men working in Babcock University, Ogun state, Nigeria. International Journal of Nursing and Midwifery. 2015;7(3):30-5.

41. Perry B, Packer C, Chin Quee D, Zan T, Dulli L, Shattuck D. Recent experience and lessons learned in vasectomy programming in low-resource settings: a document review. Durham, NC: FHI 360 and Washington, DC: Population Council, the Evidence Project. 2016.

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			
101	Your age?	year	
102	Ethnicity	1.Amhara	
		2.Oromo	
		3.Tigray	
		4. Gurage	
102	11 1 0	5. Other(specify)	
103	your religion?	1.Orthodox	
		2. Protestant	
		3.Catholic	
		4. Muslim	
104		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)	
105	Wife educational level	5.college and above 1. unable to read and write	
105	whe educational level		
		2. Read and write	
		3 primary (1-8)	
		4 secondary (9-12) 5.College and above	
106	Vour competion	1. Civil servant	
100	Your occupation	2. Has private business	
		3. Employed in private sector	
		4.Daily laborer	
		5 others (specify)	
107	Wife occupation	1.house wife	
107	whe occupation	2.Civil servant	
		3. Has private business	
		4. Employed in private sector	
		5.others (specify)	
Part	II: Reproductive health related		I
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	1.Yes	
	planning methods with your	2.No	
	partner		

304	Do you get emotional support	1.yes	
	from your partner to use FP.	2.no	
305	Do you complete your family	1.yes	
	size	2 no	
206	If no future desire number of	Male	
	children	Female	
	III: knowledge factor questionn		
No	Questionnaire	Categories and responses	Skip to
301	Do you know that vasectomy	1.Yes	
	is a contraceptive method by	2. No	
	cutting and ligating Vass		
202	deference?		
302	Do you know that vasectomy is	1.Yes	
202	permanent and irreversible	2.No	
303	Do you know that vasectomy	1.Yes	
	requires minor surgical	2.No	
20.4	procedure?	1 \$7	
304	Do you know that seminal fluid	1.Yes	
	during ejaculation are present	2.No	
205	after vasectomy?	1 X7	
305	Do you know how vasectomy	1.Yes	
207	works	2.No	
306	Do you know that vasectomy is	1.Yes	
	done in Ethiopia without any	2.No	
307	charge?	1. Yes	
507	Do you know where	1. 1es 2. No	
	vasectomy/male sterilization service is available?	2. NO	
	service is available?		
308	have you heard that who can	1.Yes	
	use vasectomy as a family	2.No	
	planning method option?		
309	If yes for Q308 who are they	1.Any married men of reproductive	
		group	
		2.marred men who complete their	
		family size	
		3.others (specify)	
Part 1	IV Attitude related questionnair	res	
No	Question	Category and response	
401	FP is a responsibility of	1.Agree	
	women	2.Neutral	
		3.Disagree	
402	Do belief that vasectomy	1.Agree	
102	negatively affect sexual	2.Neutral	
	performance/desire	3.Disagree	
	performance, desire	5.215ugroc	
403	Vasectomy has side effects	1.Agree	

	1		
		2.Neutral	
		3.Disagree	
40.4	Manager is not a second black	1. 4	
404	Vasectomy is not acceptable in	1.Agree 2.Neutral	
	my religion		
		3.Disagree	
405	Vasectomy is culturally	1.Agree	
	unacceptable	2.Nutral	
	-	3.Disagree	
406	I am uncertain for the future	1.Agree	
	pregnancy may be happen after	2.Neutral	
	vasectomy	3.Disagree	
407	Vasectomy is similar with	1.Agree	
	castration	2.Neutral	
		3.Disagree	
408	vasectomy can cause physical	1.Agree	
100	weakness, cannot do hard	2.Neutral	
	work	3.Disagree	
	Work	5.Disugree	
409	vasectomy can ashamed the	1.Agree	
	individual in the community	2.Neutal	
		3.Disagree	
Dout	VI Intention gradienceineg		
No	VI Intention questionnaires Question	Catagorias and response	Skip to
	<i>'</i>	Categories and response 1.Yes	Skip to
501	Do you have intention to use		If no skip to Q.503
502	vasectomy for future?	2.No	
502	If yes when	1. within 5 years	
		2. within 5-10 years	
		3. within 10-15 years	
503	If your answer is no for Q.501	4.after 15 years 1.lack of information	
305	÷	2.Service is not available	
	why? (more than one answer	3.Need more children	
	can be possible)		
		4.Fear of procedure 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)	

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 እንኛለሁ፡፡ የጥናቱ ርዕስ ያገቡ ወንዶች ስለ ወንድ ዘለቄታዊ የወሊድ መቆጣጠሪያ ዘዴ (ቅንጣሲቦይ) ያላቸዉን የመጠቀም ፍላንት እና ተጓዳኝ ጉዳዮች ዙሪያ የሚያጠነጥን ነዉ፡፡ስለሆነም ጥናቱ እንደ እርስዉ ያሉ ያገቡ ወንዶች ተገቢዉን ግንዛቤ እንዲያገኙ እና ዘለቄታዊ የወሊድ መቆጣጠሪያ ዘዴ (ቅንጣሲቦይን) ለወደፊት ህይወታቸዉ የእርግዝና መቆጣጠሪያ ዘዴ አድርገዉ ለመጠቀም እንዲመርጡ ያስችላቸዋል፡፡ ይህንን ዓላጣ ለማሳካት እርስዎ በቃለ መጠይቁ ላይ እንዲሳተፉ በትህትናና በአከብሮት 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፡፡ ያልተመቸዎትን ጥያቄ አለመመለስ እንዲሁም ቃለ መጠይቁን በማንኛዉም ጊዜ ጣቆም 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፡- አለ*ሙ* ደ*ጉ*ስልክ:- 0920770887

ኢሜል:- degualemu53@gmail.com

በጥናቱ ለመሳተፍ ፈቃደኛ ነዎት	1. አዎ	2. አይደለውም
የተሳታፊዎች ፊርማ	-	
መረጃዉን የሰበሰበዉ ሰዉ ስም፡		ቆርማቀን/

የጥያቄ ኮድ-----

ተ.ቁ	ተያቄዎች	ምድቦች እና ምላሾች	ወደ ይለፉ
101	እድሜ?	አመት	
102	ብሔር	1. አማራ	
		2.አሮም	
		3. ትግሬ	
		4.ዮራጌ	
		5.ሌላ(ይግለጹ)	
103		1. ኦርቶዶክስ	
	ሃይማኖት	2. ፕሮቴስታንት	
		3. ካቶሊክ	
		4. ሙስሊም	
		5. ሌላ (ይግለጹ)	
104	የትምህርት ዳረጃዎ	1.ማንበብና መጣፍ አልችልም	
		2.ማንብብ እና መጻፍ	
		3 .የመጀመሪያ ደረጃ	
		4 .ሁለተኛ ደረጃ	
		5.ኮሌጅ እና ከዚያ በላይ	
105	የባለቤትዎ ትምህርት ደረጃ	1.ማንበብና ወጣፍ አትችልም	
		2.ማንብብ እና	
		መጻፍ ትቸሳለሁ	
		3.የመጀመሪያደረጃ (1-8)	
		4.ሁለተኛ ደረጃ(9-12	
		5.ኮሌጅ እና ከዚያ በላይ	
106	<i>Р</i> Ъ	1. የመንግስት ሰራተኛ	
		2. የግል ቢዝነስ	
		3. የግል ተቋም ዉስጥ ሰራተኛ	
		4.የቀን ሰራተኛ	
		5 .ሴላ(ይግለጹ)	
107	የባለቤትዎ ስራ	1.የቤት እመቤት	
		1. የመንግስት ሰራተኛ	
		3. የግል ቢዝነስ	
		4.የግል ተቋም ዉስፕ ሰራተኛ	
		5.ሌላ(ይግለጹ)	
ክፍል 2	2:ከስነ-ተዋልዶ ጤና <i>ጋ</i> ር የተያያዙ <i>መ</i> ጠይቆች		
ተ.ቁ	ተያቄዎች	ምድቦች እና ምላሾች	ወደይለፉ
201	ከባለቤትዎ <i>ጋ</i> ር ስንት አመት አብረዉ ኖረዋል	አመት	wabut
201	በበጠይተም ሥር በሆኑ ለመጥ ለብረዉ ትሬተል የልጆችብዛት	 1.ወንድ	
202		1.ወንደ 2.ሴት	
202	ካስለበ ትወ ክር አለበ ተለብ መጣኑ ወደ ባኒ ኑ ውርስው በመታል		
203	ከባለቤትዎ <i>ጋ</i> ር ስለቤተሰብ ምጣኔ ዉይይት አድር <i>ገ</i> ዉ ያዉቃሉ	1.አዎ 2. አር <i>በር</i> መመ	
20.4	00 ታለብ መጣኑ ነንደ መታሙ ካባለበ ነጣ ነሳ። ተባለላለጠኑ በጣ ታላ	2. አናደር <i>ግ</i> ም	
204	የቤተሰብ ምጣኔ እንዲጠቀሙ ከባለቤትዎ እንዛ ተደርንልዎት ያዉቃል		

ክፍል 1፡- ማህበራዊና ኢኮኖሚያዊ ጉዳዮችን የሚዳስሱ መጠይቆች

204	የሚፈልጓቸዉን ልጆች ብዛት ወልደዋል ጨርሰዋል	1. አዎ	
		2. አልጨረስኩም	
205	አልጨረስኩም ካሉ <i>መ</i> ዉለድ የሚፈልጓቸዉ ልጆች?	ወንድ	
		ሴት	
h64 '	3: የእውቀት ሁኔታ የሚዳስሱ መጠይቆች		
ጠዋል . ተ.ቁ	ን: የለመዋት <i>ሆሬት</i> የሚሰጡም መጠይዋት በዓያቄዎች	ምድቦቸና ምላሾች	ወደይለፉ
		1.አዎ	መረይበም
301	ዘለቄታዊ የወንድ የቤተሰብ ምጣኔ ዘዴ (ቅንጣሲቦይ) የዘር ማመላለሻ ቱቦን ቆርጦ መቋመር መሆኑን ያዉቃሉ ወይ?	1.ለዎ 2.አላዉቅም	
302	ዘለቄታዊ የሆነ የወንድ የወሊድ <i>መ</i> ቆጣጠሪያ	1.አዎ	
	ዘኤ ሊመለስ የማይቸል መሆኑን ያው ቃሉ?	2.አላዉቅም	
303	ዘለቄታዊ የሆነ የወንድ የወሊድ <i>መ</i> ቆጣጠሪያ	1.አዎ	
	ዘኤ አነስተኛ መጠን ያለው ቀዶ ጥነና እንደሚያስፈልነዉ ያውቃሉ?	2.አላዉቅም	
304	ዘለቄታዊ የሆነ የወንድ የወሊድ <i>መ</i> ቆጣጠሪያ ዘዴ ከተሰራ በኋላ የዘር ፍሬ	1.አዎ	
	የሌለበት ፈሳሽ መኖሩን ያዉቃሉ?	2.አላዉቅም	
305	ዘለቄታዊ የሆነ የወንድ የወሊድ <i>መ</i> ቆጣጠሪያ	1.አዎ	
	ዘዴ እንዴት አድርን ወሊድን እንደሚቆጣጠር ያዉቃሉ	2.አላዉቅም	
306	ቀዶ ጥገናዉ በኢትዮጵያ ያለ ምንም ክፍያ እንደሚካሄድ ያውቃሉ?	1.አዎ	
		2.አላዉቅም	
307	ዘለቄታዊ የሆነ የወንድ የወሊድ <i>መ</i> ቆጣጠሪያ	1. አዎ	
	ዘኤ አንልግሎት የት እንደሚንኝ ያው ቃሉ?	2. አላዉቅም	
308	በቤተሰብ ዕቅድ ዘዴ አማራጭ ዉስጥ ዘለቄታዊ የሆነ የወንድ ወሊድ መቆጣጠሪያ	1.አዎ	
	ዘዴ መጠቀም የሚቸሉ እነማን እንደሆኑ ያዉ,ቃሉ	2.አላዉቅም	
309	<i>አዎ</i> ከሆነ <i>መ</i> ልስኦ እነማን ናቸዉ	1. ሁሉም ያንቡ ወንድ	
		2.የሚፈልጓቸዉን የልጆች ብዛት የወለዱ ባለሰቦች	
		3.ሌላ (ይግለጹ)	
ክፍል 4	4 ከአመለካከት		
ተ.ቁ	ተያቄዎች	ምድቦችና ምላሾች	ወደይለፉ
401	የቤተሰብ ምጣኔ የሰቶች ተግባር ብቻ ነዉ	1.እስማማለሁ	
		2.ነለልተኛ	
		3.አልስማማም	
402	ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ	1.እስማማለሁ	
	ዘዴ የወሲብ አቅምን/ፍላንትን ይቀንሳል	2.ነለልተኛ	
		3.አልስማማም	
403	ዘለቄታዊ የሆነ የወንድ ወልድ <i>መ</i> ቆጣጠሪያ ዘዴ የንንዮሽ ጉዳት አለዉ	1.እስ <i>ማማ</i> ለሁ	
		2.ንለልተኛ	
		3.አልስማማም	
404	ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ	1.እስማማለሁ	
	ዘዴ በእኛ ሐይማኞት ተቀባይነት የለዉም	2.ነለልተኛ	
		3.አልስማማም	
404		2.ነለልተኛ	

405	ዘለቄታዊ የሆነ የወንድ ወልድ <i>መ</i> ቆጣጠሪያ ዘይ በእኛ ባህል ተቀባይነት የለዉም	1.እስማማለሁ 2.ነለልተኛ 3.አልስማማም	
406	ከዘለቄታዊ የወንድ ወሊድ መቆጣጠሪያ በኋላ እርግዝና ሊከሰት ስለሚችል ስለ ወደ ፊቱ እርግጠኛ አይደለሁም	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም	
407	ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴ ከማምከን ጋር ተመሳሳይ ነዉ	1.እስማማለሁ 2.ነለልተኛ 3.አልስማማም	
408	ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዬ የአካላዊ ድክመት ያመጣል	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም	
409	ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዬ በማህበረሰቡ ዘንድ ያሳፍራል	1.እስማማለሁ 2.ገለልተኛ 3.አልስማማም	
ክፍል	፲ 5 ከፍላንት <i>ጋ</i> ር የተያያዙ ጥያቄዎች		I
ተ፣ቁ	ዋያቄዎች	ምድቦቸና ምላሾች	ወደይለፉ
501	ለወደፊት ዘለቄታዊ የሆነ የወንድ ወልድ መቆጣጠሪያ ዘዴን ለመጠቀም ፍላንቱ አልዎት	1.አዎ 2.የለኝም	የለኝም ካሉ ወደ ፕ.503 ይለፉ
502	አዎ ከሆነ <i>መ</i> ቸ	1.በቀጣይ 5 አመታት 2.h 5-10 አመታት ባሉት 3.h 10-15 ዓመት ባሉት 4.h 15 አመት በኋላ	
503	ለ ተያቄ ቁጥር 501 መልስዎ የለኝም ከሆነ ለምን? (ከአንድ በላይ መመለስ ይችላሉ)	1. ግንዛቤ ስለሌለኝ 2. አንልግሎ ተደራሽ ስላልሆነ 3. ብዙ ልጅ ስለምፌልግ 4.የአሰራር ሂደቱ ስለሚያስፈራ እና የንንዮሽ ጉዳት ስላለዉ 5. ዘለቄታዊና የማይመለስ መሆኑ 6.ስንፌተ ወሲብ ስለሚያመጣ 7. ከባለቤቴ ፌቃድ ስለማላዦኝ 8. ሐይማኖት ስለማይፈቅድ 9. የሰለጠነ ባለሙያ ስለሌለ 10.አርዓያ የሚሆን ስለሌለ 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		