HARAMAYA UNIVERSITY

SCHOOL OF GRADUATE STUDIES

Unmet Need for Contraception and Associated factors among Young Married Women in Haramaya Woreda, Eastern Ethiopia

MPH Thesis

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School:	**Public Health**
Program:	**Reproductive Health**
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August, 2020

Haramaya University, Harar

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Unmet Need for Contraception and Associated factors among Young Married Women in Haramaya Woreda, Eastern Ethiopia

A Thesis Submitted to the College of Health Sciences, School of Graduate Studies, Haramaya University

In Partial Fulfillment of the Requirements for the Degree of Master of Public Health in Reproductive Health

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APPROVAL SHEET

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I hereby certify that I have read and evaluated this Thesis entitled " Unmet Need for Contraception and Associated factors among Young Married Women in Haramaya Woreda, Eastern Ethiopia " prepared under my guidance by Saba Hailu. I recommend that it should be submitted as fulfilling the thesis requirement.

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Final approval and acceptance of the Thesis is contingent upon the submission of its final copy to the Council of Graduate Studies (CGS) through the Candidate's Department or School Graduate Committee (DGC or SGC).

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BIOGRAPHICAL SKETCH

The author was born in 1995 in Harari Region, Ethiopia. She completed primary and secondary & preparatory education in SOS Hermann Geminer School. After completion of preparatory school, she joined Haramya University in 2014 and she got her first BSc degree in public health in 2017, then she was employed in Harmaya Univesity CHMS in public health department. The author was working as assistant lecturer until she started Post Graduate study in Master of Public Health in Reproductive Health.

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TABLE OF CONTENTS

APPROVAL SHEET ii
STATEMENT OF THE AUTHOR iii
BIOGRAPHICAL SKETCH iv
ACKNOWLEDGEMENT v
TABLE OF CONTENTS vi
LIST OF TABLES ix
LIST OF FIGURES x
ABBREVIATIONS & ACRONYMS xi
ABSTRACT xii
1. INTRODUCTION 1
1.1. Background 1
1.2. Statement of the Problem 3
1.3. Significance of the Study 5
1.4. Objective 6
1.4.1. General objective 6
1.4.2. Specific objectives 6
2. LITERATURE REVIEW 7
2.1. Prevalence of unmet need for contraceptive among young married women 7
2.2. Associated factors of unmet need for contraception among married young women 8
2.2.1. Socio demographic factors 8
2.2.2. Partner related factors 10
2.2.3. Fertility related factors 11
2.2.4. Knowledge and use of contraception 12
2.2.5. Psycho-social factors 13
2.3. Conceptual framework for unmet need for contraception among married young women 14
3. METHODS AND MATERIALS 15
3.1. Study Area and Period 15
3.2. Study Design 15
3.3. Population 15

3.3.1. Source population 15
3.3.2. Study population 15
3.4. Inclusion and Exclusion criteria 16
3.4.1. Inclusion criteria 16
3.4.2. Exclusion criteria 16
3.5. Sample Size Determination 16
3.6. Sampling Technique 17
3.7. Data collection tool and methods 19
3.8. Variables 19
3.8.1. Dependent variable 19
3.8.2. Independent variables 19
3.9. Operational definitions 20
3.10. Data Quality Control 20
3.11. Methods of Data Analysis 21
3.12. Ethical Considerations 24
3.13. Dissemination plan 24
4. RESULT 25
4.1. Socio-demographic characteristics 25
4.2. Reproductive history 26
4.3. Knowledge and use of contraception 28
4.4. Magnitude of unmet need for contraception 30
4.5. Factors associated with unmet need for contraception 33
5. DISCUSSION 34
6. LIMITATION AND STRENGTH OF THE STUDY 36
6.1. Strength of the Study 36
6.2. Limitation of the study 36
7. CONCLUSION AND RECOMMENDATION 37
7.1. Conclusion 37
7.2. Recommendation 37
8. REFERENCES 38
9. ANNEX 42
9.1. Annex I. Participants information sheet and informed voluntary consent form for young women 42

9.2. Annex III. Participants information sheet and informed voluntary consent form for young women (Afan oromo version) 44
9.3. Annex V. English Version Questionnaire 47
9.4. Annex VI. Afan oromo version questionnaire 53
9.5. Annex VII : Curriculum Vitae 61
9.6. Annex VIII. Approval sheet 63

LIST OF TABLES

Table Page

Table 1 Sample sizes for factors associated with unmet need for contraception 17
Table 2 Socio-demographic characteristics of young married women in Haramaya HDSS, Eastern Ethiopia, 2020..... 25
Table 3 Reproductive characteristics of young married women in Haramaya HDSS, Eastern Ethiopia, 2020..... 27
Table 4 Knowledge and general information about contraception among young married women in Haramaya HDSS, Eastern Ethiopia, 2020..... 29
Table 5 Bivariate binary logistic regression analyses for unmet need for contraception and associated factors among young married women in Haramaya HDSS, Eastern Ethiopia, 2020 34

LIST OF FIGURES

Figure Page

Figure 1 : conceptual frame work for unmet need for contraception among young married women developed from different literatures. 14

Figure 2 Sampling technique for young married women for unmet need for contraception study in Haramaya HDSS, Eastern Ethiopia 18

Figure 3 Schematic presentation for computation of prevalence of unmet need for contraception 23

Figure 4 Percent distribution of need for contraception among young married women living in Haramaya HDSS, Eastern Ethiopia, 2020 30

Figure 5 Algorithm of unmet need of contraception among young married women living in Haramaya HDSS, Eastern Ethiopia, 2020 31

Figure 6 Reasons for not using contraceptives among young married women living in Haramaya HDSS, Eastern Ethiopia, 2020. 32

ABBREVIATIONS & ACRONYMS

AOR	Adjusted Odd Ratio
CI	Confidence Interval
CPR	Contraceptive Prevalence Rate
COR	Crude Odd Ratio
EDHS	Ethiopian Demographic Health Survey
FMOH	Federal Ministry of Health
IHRERC	Institutional Health Research Ethics Review Committee
FP	Family Planning
HDSS	Health Demographic Surveillance System
LMIC	Low and Middle Income Countries
WHO	World Health Organization

ABSTRACT

Background: The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior. Globally about 222 million women have an unmet need for family planning even though utilization of family planning services has increased over the last decades. Young married women have higher unmet need compared to older women. Researches typically generalize contraceptive use among all women however recent studies have highlighted the need to differentiate by age when studying factors that affect contraceptive use, since young women reproductive needs differ from the older women. Studies also neglected and hardly mentioned the importance of examining psychosocial factors on contraceptive use.

Objective: To assess the prevalence and associated factors for unmet need for contraception among young married women in Haramaya, Health Demographic Surveillance System site Eastern Ethiopia, from March 1-30, 2020.

Methodology: Community based cross sectional study design was employed on 550 young married women in Haramaya HDSS site. Pretest was conducted on 28 young married women. Simple random sampling technique was used to select study participants. Data was entered into EPIDATA version 3.1 and exported to STATA version 16 for analysis. Bivariable and multi variable binary logistic regression was carried out to assess associations between outcome and explanatory variables and P-Value < 0.05 was considered as significant.

Result: Total unmet need for contraception was 154 (30.3 %). Adolescents (AOR=2.02, 95% CI: 1.20-3.41), husband's low education level (AOR=2.43, 95% CI: 1.28- 4.5), and never use of contraceptive (AOR= 3.3, 95% CI: 1.86- 5.73) were significantly and positively associated with unmet need of contraception. Husband's supportive attitude towards contraception (AOR=0.44, 95% CI: 0.20-0.92) was negatively associated with unmet need of contraception.

Conclusion: Nearly one-third of married young women had an unmet need for contraception. Unmet need for contraceptive use is still high indicating more to be done to ensure that FP programs are effective and meeting the needs of young women. This study showed unmet need adolescents, husband's level of education, never use of contraceptives, and husbands supportive attitude towards contraception were factors associated with unmet need.

Key words: unmet need, contraception, young married women

1. INTRODUCTION

1.1. Background

The concept of unmet need points to the gap between women's reproductive intentions and their contraceptive behavior (Mota et al., 2015). Unmet need for family planning is defined as percentage of all fecund women who are married or living in union and thus presumed to be sexually active but are not using any method of contraception, either do not want to have more children or want to postpone their next birth for at least two more years or do not know when or if they want another child. In addition women who are pregnant or who are experiencing postpartum amenorrhea (have not resumed menstruation after a birth in the two years preceding the survey) are classified as unmet need if they indicated that their current or recent pregnancy was unintended (Sedgh *et al*., 2016).

WHO defines 'Adolescents' as individuals in the 10-19 years age group and 'Young People' covers the age range 10-24 years (WHO, 2018). Reducing pregnancies among adolescents is a global priority for the international Family Planning 2020 (FP2020) initiative. Specifically it calls for meeting all women's needs for modern contraception to avert unintended pregnancies and reducing the high adolescent birth rates in the world's poorest countries (Atchison *et al*., 2019). Contraceptive Prevalence Rate (CPR) and unmet need for FP are vital indicators for determining the level of enhancements in access to reproductive health (Duressa et al., 2018).

Globally about 222 million women have an unmet need for family planning and three regions-sub-Saharan Africa, South Central Asia and Southeast Asia are dwelling to more than half of these women (Gebre *et al*., 2016). Despite the efforts made to revitalize FP programs, it is imperative to address the growing needs for contraceptives among African youth, specifically. Data on need for pregnancy spacing indicate that the FP needs of youth are 2.3 times higher than those of the adult population (Prata et al., 2013).

It is predicted that universal access and use of contraceptives amongst adolescents and young women could lead to a decrease of 2.1 million unplanned and or unintended births, 3.2 million abortions, and 5600 maternal deaths each year. Contraceptive use also provides with an

opportunity to make informed decisions about when they want to have their children. Despite these benefits, 214 million young women from developing countries had an unmet need of modern contraceptives (Makola et al., 2019). In Ethiopia despite family planning (FP) interventions of the Ethiopian federal ministry of health (EFMOH), including the HEP have significantly improved access to FP services, 20.5% married adolescents and 18.5 % of 20-24 age group women had unmet need for contraception (Tadele et al., 2019).

Nigeria, Ethiopia and Tanzania have among the highest rates of adolescent fertility globally with 109, 80 and 118 births per 1000 girls respectively. In Nigeria 98.8%, in Ethiopia 68.2 % and in Tanzania 86.7 % married adolescents do not use a modern contraceptive method (Atchison *et al*., 2019). Approximately one-third of Ethiopia's population is between the ages of 10-24. According to EDHS 2016 the age-specific fertility rate peaks at age 25-29 (214 births per 1000 women) followed by the 20-24 years age group (200 births per women) however 61.2% young women (20-24 years) are not using modern contraceptive methods (Central Statistical Agency and Icf, 2017).

1.2. Statement of the Problem

One in five people are between the ages of 15 and 24 years worldwide, there are more youths in the world than ever before. The majority of young people live in developing countries, and the 10 countries with the youngest populations are residing in sub-Saharan Africa (SSA). Contraceptive use among young women (aged 15–24), whether married or unmarried, is lower than older women in the developing world. Unmet need is highest among, the West and Central African regions (29.3% among young married women and 41.7% among young unmarried women) high unmet need correspond with heightened risk of unwanted pregnancy and related morbidities and mortalities (Mutumba et al., 2018, Prata et al., 2013).

Among adolescent girls and young women aged 15–24, 33 million in 61 countries are estimated to have an unmet need for voluntary family planning (Jain *et al*., 2019). In general, married adolescents aged 15-19 experience greater unmet need than "all" married women. In Ethiopia currently married adolescent girls have the highest unmet need for family planning (33%), compared to married women in other groups (Ketema and Erulkar, 2018).

Young women, especially adolescents, are at higher risk of morbidity and mortality associated with pregnancy and childbirth. Globally it is estimated that 15% of maternal deaths occurred among young women aged 15-25 years (Neal *et al*., 2016). The risk is much higher when pregnancy is unintended while most pregnancies to young girls in sub-Saharan Africa are unintended or mistimed. In Ethiopia 28% of adolescents aged 15–19 and 24% of young women aged 20–24 have had unintended pregnancies (Worku *et al*., 2015).

Currently Ethiopia is committed to increase contraceptive use among adolescent and youth through smart start program. A360's Smart Start uses financial planning as an entry point to engage young married couples in planning their futures and reaching financial stability, positioning contraception as a tool to achieve their self-defined goals. The Ethiopian Ministry of Health, with an investment from the Children's Investment Fund Foundation and with technical assistance from Population Services International (PSI), is scaling Smart Start nationwide by integrating with Ethiopia's national Health Extension Program – bringing Smart Start to 1 million girls by 2025 (Appleford et al., 2019).

Previous researches conducted showed factors that contribute to low mCPR among adolescents include early marriage and the desire to demonstrate fertility, lack of comprehensive sexuality

education, misconceptions about contraception, fear of side effects and infertility, financial cost, and negative societal norms and stigma around contraception (Atchison *et al*., 2019). There are several gaps in the literature on contraceptive use among young women in developing world. First extensive researches have been made to understand individual and institutional level factors that influence the uptake of contraceptives. These studies on contraceptives however neglected and hardly mentioned the importance of examining psychosocial factors in contraceptive use. Socio-cultural and structural barriers often prevent young women from achieving their reproductive intentions, which can result in unintended pregnancies (Cohen et al., 2020). Improving availability, affordability, and youth-friendliness may not fully address the psychosocial barriers to contraceptive use among them (Prata *et al*., 2016).

Additionally the researches typically generalize contraceptive use among all women however recent studies have emphasized the need to differentiate by age when studying factors affecting contraception use. Young women may disproportionately experience unmet need for family planning due to their different fertility preferences associated with this stage of the life course. Consecutively, they may experience higher levels of unmet need where they lack full knowledge of their options, access to services particularly those designed for young people or for spacing needs generally, or where programs underestimate needs of youth (Lamichhane, 2017).

There is low contraceptive uptake and high rates of early and rapid child bearing among young married women in Ethiopia (Jain *et al.*, 2017); therefore we need to investigate further than individual factors that hinder the utilization of contraceptives among these young women. Individual characteristics alone provide only a partial picture of the social structure but we need to integrate these with community level characteristics since in patriarchal community like Ethiopia young women are expected to follow traditional gender roles and norms of the community. Hence this study aims to investigate and provide information that fills the gaps on factors affecting unmet need for contraception among young married women in Haramaya woreda HDSS site, Eastern Ethiopia.

1.3. Significance of the Study

This study aims to assess the prevalence of unmet need for contraception and associated factors among married young women living in Haramaya Woreda. A logical understanding of barriers and characteristics among young women with unmet need is important for regional health bureau to amend their policy on family planning programs. The study will help local health managers at regional level to understand the extent of the problem and use the information obtained for evidence based decisions.

It also paves a way for developing new approaches among the community health workers for increasing contraceptive utilization among young women in the community by identifying the contextual factors for non-use of family planning methods.

The findings of this study will provide input to policy makers to design appropriate interventions, programs and strategies to address factors leading to unmet need for contraceptive in order to achieve the demographic and ultimately enhance the health and rights of individuals in the country. Furthermore this study serve as a reference material for those scholars interested in the field of family planning programs.

1.4. Objective

1.4.1. General objective

- To assess the prevalence and associated factors of unmet need for contraception among young married women in Haramaya Woreda, HDSS site, Eastern Ethiopia from March 1- 22, 2020.

1.4.2. Specific objectives

- To determine the prevalence of unmet need for contraception among married young women in Haramaya Woreda, HDSS site in 2020.
- To identify factors associated with unmet need for contraception among young married women in Haramaya Woreda, HDSS site in 2020.

2. LITERATURE REVIEW

2.1. Prevalence of unmet need for contraceptive among young married women

The percentage of young married women having unmet need varies broadly across countries in Sub-Saharan Africa. Unmet need ranges from 14.7 percent among married women aged 15-24 in Niger to 45.7 percent in Ghana. In these countries, unmet need ranges from 11.2 to 61.7 percent among women age 15-19 compared with 17.2 to 42.4 percent among women age 20-24.countries found in east and South Africa, Eritrea (34.8%), Kenya (30.2%), and Uganda (34.3%) have higher level of unmet need among young women (MacQuarrie, 2014).

Analytical -cross sectional study conducted in Nepal among married young women reported that 38% of young women have total unmet need of contraception. 41.5 % of adolescent married women aged 15-19 years' experience unmet need, among these 37.5% wanted to space their pregnancies while 4% had unmet need for limiting. The total unmet need among married women aged 20-24 was 37% of which 23.3% was for spacing and the rest 14% was for limiting their number of children (Lamichhane, 2017). Similar community based cross-sectional study conducted among married women in rural Madhya Pradesh the highest magnitude of unmet need for contraceptive was observed among the age group of 15-24, that is 35% (Sahasrabuddhe *et al*., 2018).

In northern Nigeria a community based cross sectional study was conducted among married women younger than 25 years and men married to women younger than 25 years, and 11% of women reported having unmet need for modern contraception (Sinai *et al*., 2018).

Numerous studies have reported disparate magnitude of unmet need of contraceptives in some parts of Ethiopia. For instance, a community based cross sectional study conducted in Finoteselam district, North West Ethiopia stated that 5% of married adolescents and 15% of married women aged 20-24 experienced unmet need for contraceptive (Tessema and Getaneh, 2018). Likewise, the research among married women in rural Tigray, Ethiopia investigated and found higher unmet need was among married adolescent girls (15-19), which is 32.5% (21% for spacing and 11% for limiting pregnancy) followed by 28% of unmet need (17.2% for spacing and 11% for limiting) among the young women in the age of 20-24 (Yibrah and Gabriel, 2018).

A recent community-based cross-sectional study used to assess the magnitude and associated

factors of unmet need for family planning among married women of Jigjiga city administration in Somali Region state of Ethiopia, revealed that the unmet need among young married women (15-24) in the study area was 29% (Gebreyesus, 2019). A community-based cross-sectional study conducted among young married women (14–24 years of age) in Eastern Ethiopia showed the prevalence of unmet need for contraception in the study area was 34.6% (Dingeta *et al.*, 2019).

The overall magnitude of unmet need among married adolescents and young women in Ethiopia according to the Ethiopian demographic and health survey of 2016 report is 20.5% and 18.5% respectively (Central Statistical Agency and Icf, 2017).

2.2. Associated factors of unmet need for contraception among married young women

2.2.1. Socio demographic factors

2.2.1.1. Age of women

Age of women is important contributing factor of unmet need for family planning. In some studies young age as a determinant of unmet need was found to be positively and significantly associated with total unmet need for FP, meaning young women face higher unmet need than older women do. A study done in Ethiopia showed women between the age range of 15-24 years were 2.26 times more likely to have unmet need family planning compared to older women(Workie et al., 2017). The study done based on Nepal Demographic and Health Survey reported that Unmet need for family planning is lower among women of aged 20-24 years (OR = 0.78, 95% CI: 0.627- 0.981) as compared to women aged 15 -19 years indicating that demand for contraception is high among the adolescents (Lamichhane, 2017). A community based cross-sectional study conducted in Gonji Kolela District, Ethiopia showed that, married adolescents are four times more likely to have unmet need for FP when compared to older women (AOR=4.13, 95% CI: 1.86-9.17) (Biadgie *et al*., 2019). Likewise, a study conducted based on Nigerian Demographic and Health Survey found that younger women had higher odds of having unmet needs than the older women (AOR = 4.29; 95% CI = [3.03, 6.07] (Fagbamigbe *et al*., 2018).

2.2.1.2. Educational status of women

An educational status of women affects fertility and imparts skills that could alter how women perceive their role in society. Highly educated women are aware of their reproductive rights and have power in making contraceptive decisions with in their families. This would greatly reduce the burden of unmet need for family planning. Determinants of unmet need for contraceptive method was assessed by Duressa et al. 2018 using data collected in Sibu Sire District community. According to their results married women who were illitrate were two times more likely (AOR= 2.6; 95% CI: 1.3-5.1) to have unmet need for family planning than those attained education (Duressa et al., 2018). However the study done in nepal showed inverse relationship between education and unmet need among young women.according to the study young women (15-24) who have secondary and more level of education are more likely to experience unmet need compared to uneducated women (AOR = 1.905, 95% CI: 1.490-2.435) (Lamichhane, 2017).

2.2.1.3. Women's occupation

Different studies documented contraceptive method use varies by women occupational status. Secondary analysis from Nepal Demographic and Health Survey data shows married young women (15-24) empowerment was associated with unmet need for contraceptive. Women in this study, who were currently working in non-agricultural sector were 46% less likely to have unmet need for family planning when compared to women who have no occupation (Lamichhane, 2017). A community-based study in Debreberhan Town shows occupation was significantly associated with unmet need. Married women who are employed were found to be (AOR=13.992; 95% CI: 1.054–185.833) times likely to have an unmet need for family planning compared with self-employed women (Worku *et al*., 2019).

2.2.1.4. Economic status

Evidently, there are strong hypothetical connections between adoption of modern contraceptive methods and economic empowerment, a number of studies illustrated that unmet need is higher among women with lower economic status. For instance a study conducted in Burkina Faso to assess determinants of unmet need among married women identified a significant positive association between unmet need and the least poor income quintile [OR=1.72; 95% CI (1.04–2.85)] (Wulifan *et al*., 2017). Similarly, low socioeconomic status significantly increased unmet

need for family planning in the study conducted in Pakistan (AOR=1.17; 95% CI: 1.02-1.34) (Ahmed et al., 2013).

2.2.2. Partner related factors

In certain societies, husbands consent is required to make reproductive health decisions. Several previous studies in developing countries suggest that the husband exerts a significant impact on a women's decision to use contraceptives. Partners' opinions on FP use result in additional barriers to use a method. For instance a study conducted in Awi zone, Amhara region has revealed that women whose partner was not supportive to contraceptives use were 3.34 (AOR = 3.34, 95 % CI: 1.26–8.90) times more likely to have unmet need for FP compared to those women whose partner was supportive (Genet *et al.*, 2015). Another cross sectional study conducted in Cameron also reported that women who have partner's approval of contraception are less likely to have unmet need (AOR = 0.52 CI: 0.30-0.92) (Ajong *et al.*, 2015).

Since husbands play a major role in their wives family planning decisions, the associations between educational status of husband and FP use have examined through studies. A study conducted based on Pakistan Demographic and Health Survey to assess socio-demographic determinants of unmet need for family planning among married showed with an increase in husband's education, the likelihood of overall UMNFP, unmet need for spacing and unmet need for limiting has a tendency to fall (Asif and Pervaiz, 2019). Cross-sectional study conducted in Eastern Sudan revealed husband education less than secondary level had significant association with unmet need (AOR=1.9, 95% CI: 1.3-2.6) (Abdel and Amira, 2013).

Studies have highlighted that spousal communication between husband and wife shape decisions on FP use mostly concerning the total number of desired children, are determinants of unmet need. A study conducted based on Ethiopian Demographic and Health Survey Data (EDHS) among married women in oromiya region, found that women who have discussed family planning at least once with their husbands were 74% less likely to have unmet need for contraception than women who never discussed (Bedhadha, 2017). In another research conducted among young married women in India regarding intra spousal communication and contraceptive usage showed that those women who had communicated about contraceptive use

with their husbands were more likely to use contraceptive than those didn't communicate about it (Behera *et al*., 2016).

2.2.3. Fertility related factors

Early marriage was identified as a predictor for unmet need for FP in research findings from several countries, where social norms force young women to bear children soon after marriage. Consequently, young women face pressure from their husbands and in-laws not to use contraception. A community based study carried out in India also showed that early marriage has association with unmet need (Sabat *et al*., 2019).Likewise, a study conducted in Gonji Kolela District, West Gojam Zone Amhara Region among married reproductive aged women showed women with age at first marriage below 18 years were 2.11 (AOR=2.11, 95% CI: 1.28-3.50) times more likely have unmet need for family planning when comparing to 18 & above years (Biadgie *et al*., 2019). Another study in Enemay District by Dejenu et.al, on married women have concluded that women with age at first marriage at 18 and above are less likely to have unmet need for contraceptive that women who got married before the age of 18 years (Dejenu *et al*., 2013).

Women who have decided to have less than five children were 48% less likely to face unmet need for FP over those who decided to have more than five children(AOR=0.48, 95%CI: 0.28, 0.80) (Gebre *et al*., 2016).Women who desire to have more than or equal to ten children were 3.7 (AOR=3.7, 95% CI: 1.42, 9.8) times more likely to have unmet need for FP than those who desired to have less than ten children (Tahir Yousufa, 2019).

Number of living children is other significant factor for unmet need. A cross-sectional study conducted in rural Tigray concluded that women who have four or more children have higher unmet need (AOR=6.1, 95% CI: 1.006-1.032) than their counterparts who have less number of children (Yibrah and Gabriel, 2018). Similarly a study conducted among young married women in Nepal showed finds unmet need for family planning to be higher among women with higher number of living children than among women with one or no child (AOR=1.62, 95% CI:1.185-2.225) (Lamichhane, 2017).

A cross-sectional study conducted in Burundi concluded that total unmet need was also found associated with women who had already experienced the death of a child, compared to those who

had not [AOR = 1.285 (1.038-1.591)] (Nzokirishaka and Itua, 2018). A community-based study conducted in eastern Cairo, Egypt to assess the prevalence of unmet need for contraceptive showed that history of abortion was associated with unmet need for contraceptive in the study area(Sultan *et al*., 2010).

2.2.4. Knowledge and use of contraception

Women who are aware of different contraceptive methods know where they can be obtained are less likely to have unmet need. According to study conducted in Nepal having a good knowledge of contraceptive method [AOR (95%CI) =0.49 (0.2-0.97)] were negatively associated with unmet need. However, lack of information where to obtain accurate family planning information and methods can be a serious barrier to eventual uptake of FP services.

Bringing family planning services to each doorstep through HEWs showed a significant association in decreasing unmet need in several studies. The study conducted in Debrebrhan Town reveled women who heard information about family planning from health worker are 0.018 (AOR=0.018 (0.002–0.170) less likely to had an unmet need for family planning compared with those who got from community (Worku *et al*., 2019). Similarly, the study conducted in Shire-Enda-Selassie on currently married women has also reported that having discussion with community health providers about FP was negatively and significantly associated to unmet need (Gebre *et al.*, 2016).On the other hand a study conducted in Brundi showed investigated that women who did not have access to FP messages through radio or TV were more exposed to unmet need for spacing with [AOR=1.228 (1.022-1.477)] and [AOR=1.635 (1.017-2.629)] respectively (Nzokirishaka and Itua, 2018).

A study conducted in Tiro Afeta Distr ict, south west Ethiopia showed that women who never use of family planning before survey were five times (AOR:5.09, 95% CI: 2.73–9.50) more likely to have unmet need compared to who have ever used (Solomon et al., 2019). Another study conducted in Shire-Ende-Silase reported those women who have never used modern FP before were 2.29 times more likely to have unmet need for FP than those who have ever used, therefore, previous exposure to modern family planning has negatively and significantly associated to the outcome variable (AOR=2.29, 95% CI, 1.20-4.34) (Yibrah and Gabriel, 2018).

2.2.5. Psycho-social factors

Studies showed that the high-unmet need for modern contraception among young married women in sub-Saharan Africa and identifies social and cultural barriers as a significant reasons for it. A young married who wants to use contraceptive soon after her marriage might anticipates negative attitudes from society or discrimination (like verbal or physical abuse from husband) or feels shame for wanting to use contraception that prevents her from accessing contraceptive services. A study entitled stigma as a barrier to family planning use among use among married youth in Ethiopia showed that youth who experienced anticipated stigma were significantly more likely to have an unmet need for contraception (AOR=1.97, 95% CI: 1.16–3.36) (Jain *et al.*, 2019). Similarly a community based survey conducted in five regions five Ethiopian regions – Amhara, Beningshangul, Oromia, SNNP and Tigray showed that married young women who reported having perceived internalized stigma were 2.25 (95% CI: 1.35-3.75) times more likely to have an unmet need for contraception (Jain *et al.*, 2017).

2.3. Conceptual framework for unmet need for contraception among married young women

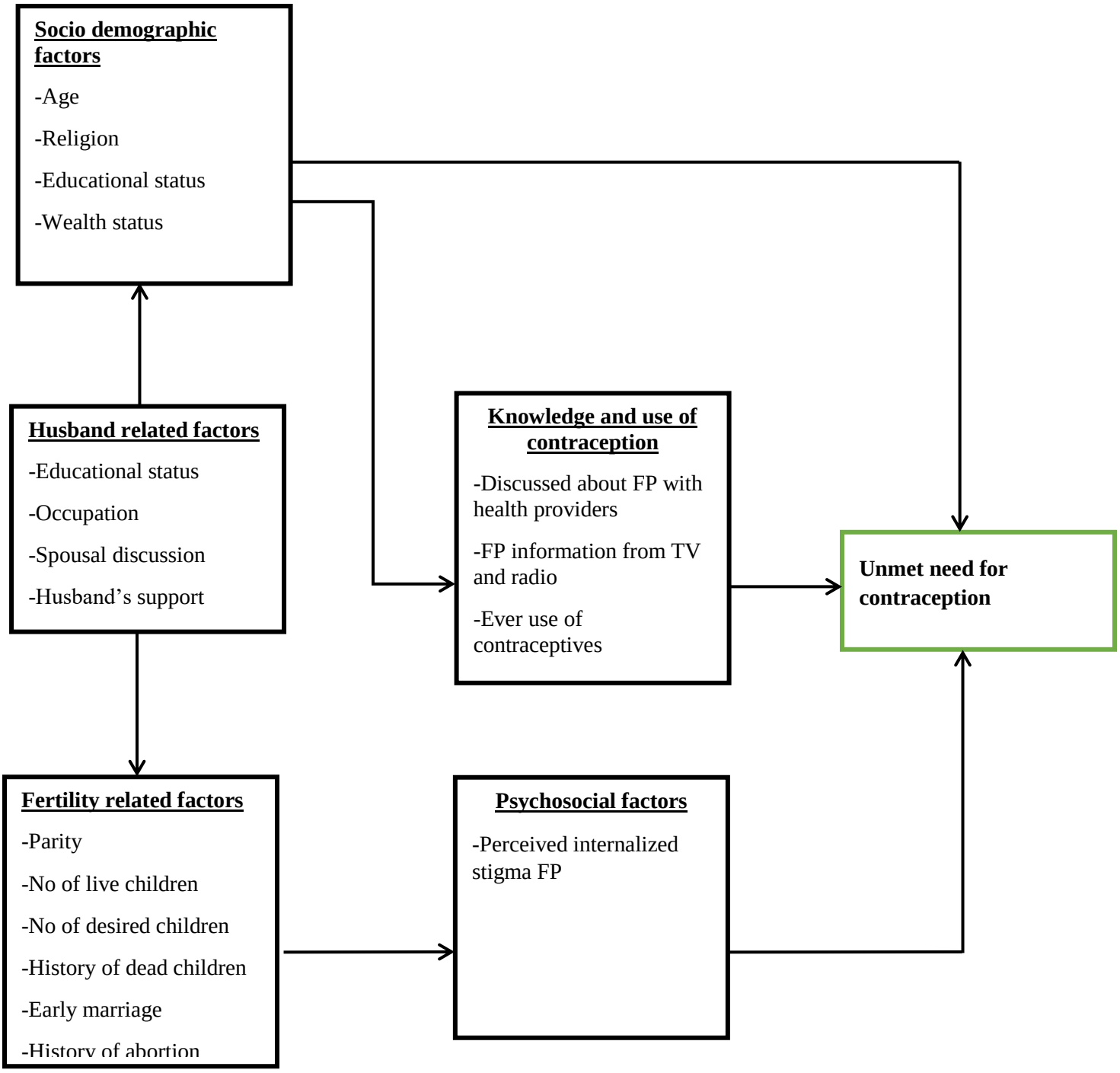

Figure 1 : conceptual frame work for unmet need for contraception among young married women developed from different literatures.

3. METHODS AND MATERIALS

3.1. Study Area and Period

The study was conducted in Haramaya woreda (synonymous with district), East Hararghe zone, Oromia Region, Ethiopia. Haramaya woreda is located 500km way from Addis Ababa, capital city of Ethiopia. The altitude of this woreda ranges from 1400 to 2340 meters above sea level. It is named after the administrative center, Harmaya town. It is bordered on the south by Kurfa Chele, on the west by Kersa on the north by Dire Dawa on the east by Kombolcha and on the southeast by the Harari Region Haramaya woreda has 36 rural kebeles (smallest administrative unit in Ethiopia) and five urban kebeles. The 2007 national census reported a total population for this woreda of 271,018, of whom 138,282 were men and 132,736 were women. There are eight health centers and one general hospital in the study area (Central statistical agency, 2017). The Haramaya health and demographic health survey (HDSS) field site which is maintained by Haramaya University was established in the year 2018 GC. The site is established on 12 rural kebeles of Haramaya Woreda. The site constitutes 93,363 residents and 12,829 married reproductive-age women of which 18% were young women aged 15–24 years.

The study was conducted from March 1- 22, 2020.

3.2. Study Design

- Community-based quantitative cross-sectional study design was implemented.

3.3. Population

3.3.1. Source population

- All married young women aged 15-24 in Haramaya woreda HDSS site.

3.3.2. Study population

- Young married women living in the selected households in Haramaya HDSS site.

3.4. Inclusion and Exclusion criteria

3.4.1. Inclusion criteria

- All young married women living in the selected kebeles of Haramaya woreda HDSS site.

3.4.2. Exclusion criteria

- Young married women who are critically ill and unable to respond during data collection

3.5. Sample Size Determination

Sample sizes for the first and second objectives were calculated separately and the larger sample size was taken for the study.

Specific objective 1- prevalence of unmet need for contraception

The sample size calculation for first objective was determined using single population sample calculation formula. An estimate of 34.6% of unmet need for contraception among married young women in Eastern Ethiopia (Dingeta et al., 2019).

The sample size calculated by using a single population proportion formula

$$n = \frac{(z_{\alpha/2})^2 p(1-p)}{d^2}$$

Where ***n*** is the minimum sample size required, **Z** is the standard value of confidence level of α = 95%, $(z_{\alpha/2}) =$ 1.96, ***P*** is proportion of unmet need for contraception in Eastern Ethiopia which is 34.6 % and ***d*** is the margin of error ***d***=0.05

$$n = \frac{(1.96)^2 \times 0.346(1-0.346)}{(0.05)^2} = 347.7 \approx 348$$

Considering 10% non-response rate the sample size become 383.

Specific objective 2- Factors associated with unmet need

The sample size for the second specific objective of this study was determined by considering factors that are significantly associated with the outcome variable. The sample size was calculated using three factors from the studies done on unmet need and associated factors for family planning among married women with two sided confidence level of 95%, 5% margin of error, power of 80% and ratio of exposed to unexposed 1:1 using EPI INFO version 7 software (Table 1)

The sample size for the second objective the factor with maximum sample size was chosen which is 500 and then 10% non- response added so the sample size becomes 550. By considering both the objectives, the second objective sample size is greater than the first one. Thus, the sample size of the second objective is taken as final sample size which is 550

Table 1 Sample sizes for factors associated with unmet need for contraception

Factors	% outcome in exposed group	% outcome in unexposed group	AOR	Sample size	Reference
Desired number of children	28.7	12	3.7	204	(Tahir Yousufa, 2019)
Women age	10.2	19.5	2.2	500	(Workie et al., 2017)
Ever use of FP	56.3	43.7	2.29	230	(Gebre *et al.*, 2016)

3.6. Sampling Technique

Simple random sampling method was undertaken to recruit study participants. Among 12 kebeles of Harmaya HDSS site, Gobe challa kebele and kuro kebele were selected by simple random method. The Haramaya HDSS database maintained by Haramaya University was used as a sampling frame to identify a list of households with young married women (15-24 years) in each kebele. There are 487 and 395 young married women in Gobe challa kebele and kuro

kebele respectively. The sample size (550) is allocated proportionally to each kebele (304 for Gobe challa and 246 for kuro). Finally households with young married women were selected by using simple random sampling method.

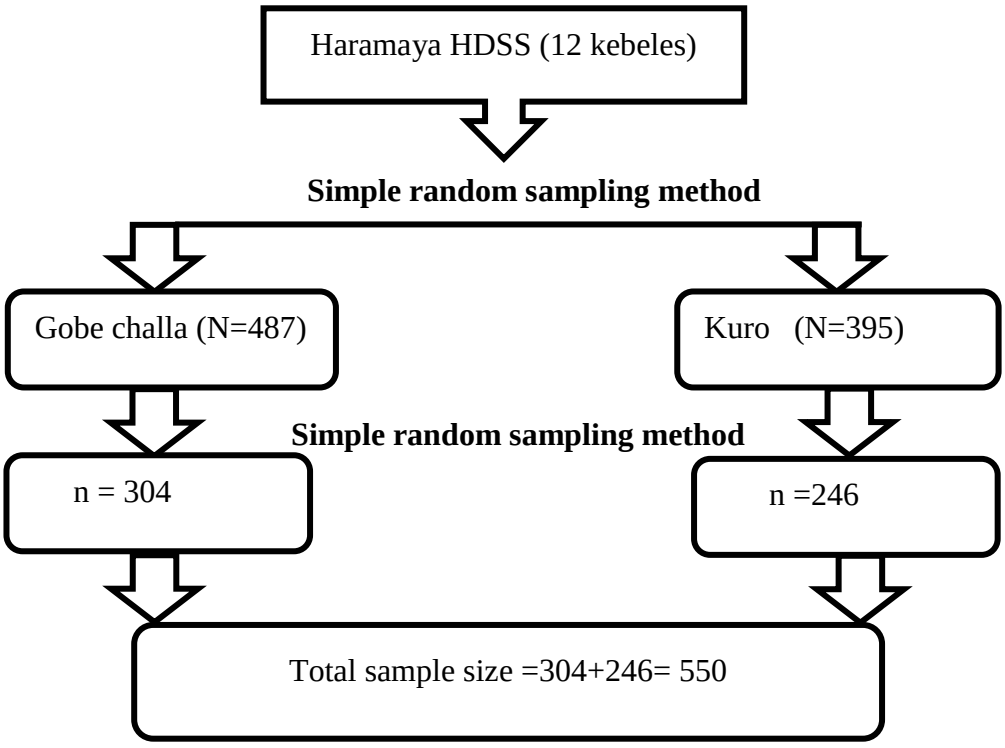

Figure 2 Sampling technique for young married women for unmet need for contraception study in Haramaya HDSS, Eastern Ethiopia

3.7. Data collection tool and methods

Data was collected by face to face interview using structured and pre-tested questionnaires. Questionnaires were developed from other studies on unmet need for family planning and based on filter questions from EDHS. The study participants were interviewed house to house by six trained health professionals, using questionnaire translated in to the local language, Afaan oromoo and two supervisors monitored the whole data collection process in the selected kebeles.

The questionnaire had four sections

Section 1- Socio- Demographic Characteristics of respondents.

Section 2- Knowledge and use of contraceptive

section 3- Reproductive history of respondents

section 4- Perceived internalized stigma towards contraception use

3.8. Variables

3.8.1. Dependent variable

• Unmet need for contraception among young married women

3.8.2. Independent variables

Socio demographic variables

- Age
- Religion
- Monthly income
- Educational status
- Occupation

Partner related variables

- Husband's attitude towards contraception
- Spousal discussion
- Husbands occupation
- Husband's educational level

Fertility variables

- Parity
- Age at marriage
- Number of live children
- History of dead children
- History of abortion
- Desired number of children

Knowledge and use of contraceptive variables

- Knowledge about contraception
- Ever use of contraception
- Discussion about contraception with health worker

Psychosocial variable

- Perceived internalized stigma towards FP use

3.9. Operational definitions

Women with unmet need: Proportion of women who (1) are not pregnant and not postpartum amenorrhoeic and want to postpone their next birth for 2 or more years (unmet need for spacing) or stop childbearing altogether (unmet need for limiting) but are not using a contraceptive method, or (2) Have a mistimed or unwanted current pregnancy, or (3) are postpartum amenorrhoeic and their last birth in the last 2 years was mistimed or unwanted (unmet need for spacing) (Central Statistical Agency and Icf, 2017).

Knowledge of contraception: awareness for at least one method of contraception (Central Statistical Agency and Icf, 2017).

3.10. Data Quality Control

One day training was given for data collectors and supervisors as well. The training was focusing on the content of data collection tool, data collection period, data handling and submitting the collected data. The questionnaires were prepared in English, and translated into the local language Afan Oromo and re-translated back to English to check for its consistency. A pretest was conducted on 5% of the study population that is on 28 young married women aged 15-24 in Kersa HDSS in order to check for the consistency and inaccuracy of the questionnaire. Regular monitoring for completeness, consistency and accuracy of the data was held on daily basis on each day of the data collection period by the assigned supervisors.

3.11. Methods of Data Analysis

All questionnaires were checked for completeness by principal investigator and supervisors each day before the data entry. Across checking it was coded and doubled enter in to Epi-Data version 3.1 and then exported to STATA version 16 statistical package for analysis. Univariate analysis (frequencies & percentage) was done for categorical variables and means were calculated for continuous variables. The result was presented by narration, tables and graphs. Binary logistic regression analysis was used to identify factors associated with the outcome variable. Those Variables in bivariate analysis whose p value less than 0.25 ($p<0.25$) were included in multiple logistic regression and multivariable binary logistic regression analysis was performed. In order to measure the strength of the association between the outcome and independent variables, Odds Ratio with 95% Confidence interval (CI) was computed. Finally, variables whose p value less than 0.05 ($p<0.05$) in binary logistic regression was used to state statistically significant. Hosmer– Lemeshow goodness-of-fit test was used to test for model fitness. Multi co-linearity test was carried out to see the correlation between independent variables.

Family wealth index was calculated using the principal component analysis (PCA) method. Items were assessed by household assets and number of animal owned and then each household falls in to three categories (poor, medium, and rich).

Perceived internalized stigma towards FP use was an independent variable identified as a predictor of unmet need for contraception among young married women, which is an index that was measured through the combination of 5 questions related to fear, worry and embarrassment when accessing FP adopted from literature (Jain *et al*., 2017). The response to question was categorized in to strongly disagree, disagree, neutral, agree, and strongly agree. The total score was then obtained by summing all items, which ranged from 5 to 25 points and then categorize the score as above and below the median. Those above median scores were classified as having perceived internalized stigma for contraceptive use and those below median scores were classified as not having perceived internalized stigma for contraceptive use.

In this study, unmet need for contraception is the main outcome variable and it was computed by using the following steps (figure 3).

Step 1: Contraceptive use status- the percentage of young married women who were not using contraception was determined.

Step 2: Pregnancy and amenorrheic status- women in step -1 were divided in two groups (pregnant or amenorrheic and not pregnant nor amenorrheic)

Step 3: By considering the wantedness of pregnancy status from the two identified groups in step 2, three other percentages were developed (pregnancy mistimed, pregnancy unwanted and intended pregnancy)

Step 4: For the fecund group future fertility intentions were considered and the percentages of those who want to postpone childbearing (want later/spacers), unsure if or when they want and those who want to limit (want no more children/limiters) were computed.

Step 5: Groups identified in step 3 (pregnancy mistimed and pregnancy wanted) and step 4 (proportion of those fecund women who want childbearing later, those who are unsure if or when they want and want no more) the percentage who have unmet need for spacing and limiting, respectively were calculated. The sum of proportions of unmet need for spacing and limiting gave the final unmet need for contraception.

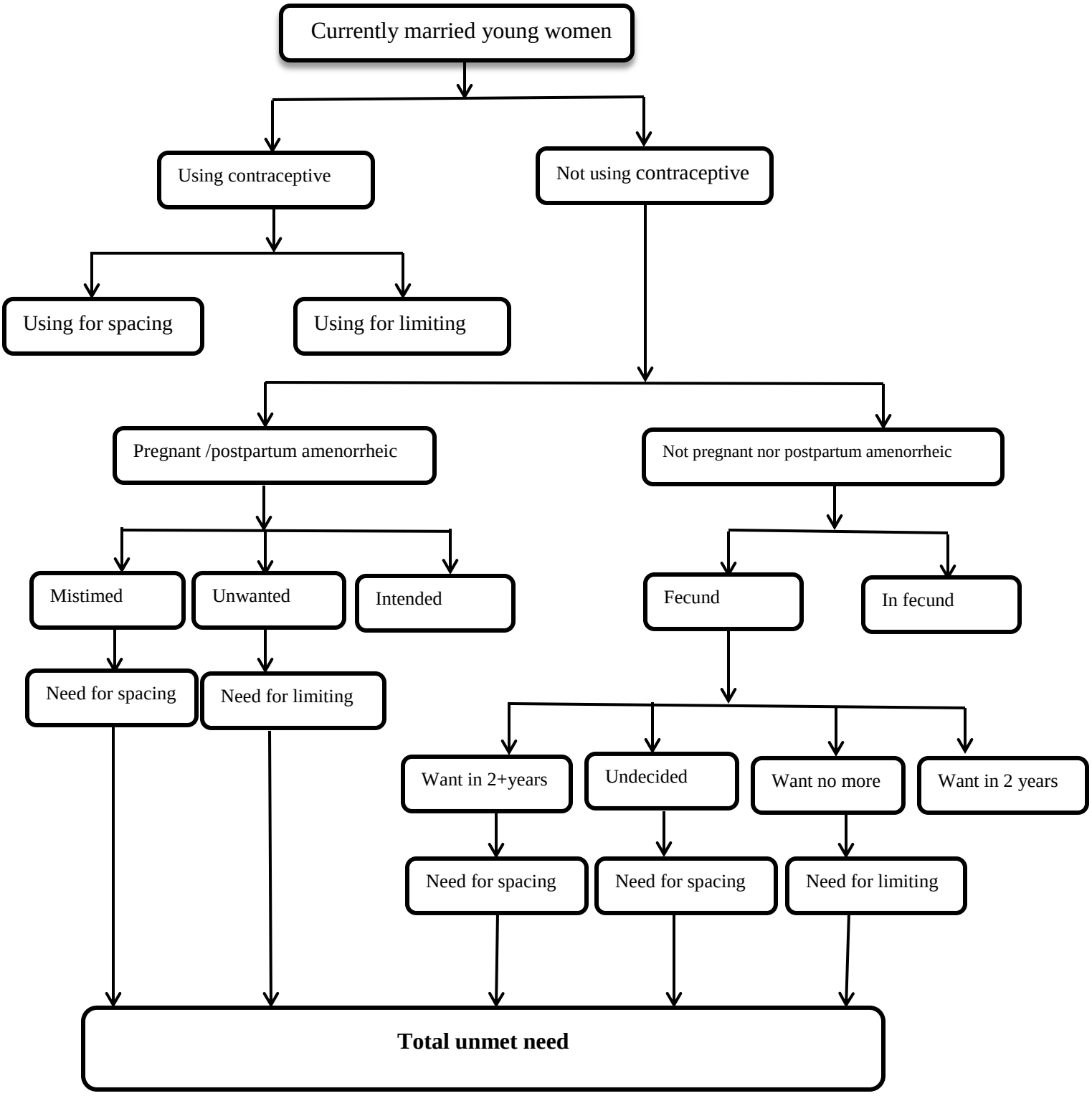

Figure 3 Schematic presentation for computation of prevalence of unmet need for contraception

3.12. Ethical Considerations

Ethical clearance was obtained from Institutional Health Research Review Committee (IHRERC) of the College of Health and Medical Sciences, Haramaya University College of health and medical science and official letter was sent to the Haramaya woreda bureau administration prior to the data collection. Letters were sent to the local authority of selected kebeles. Participants were informed clearly about the purpose and benefit of the study and confidentiality of their response then informed, voluntary, written and signed consent was obtained from all study participants.

3.13. Dissemination plan

The results of this study will be presented to MPH defense in Haramaya University College of health and medical science. Hard copy and soft copy of the study will be submitted to Haramaya University and Haramaya woreda health bureau. Efforts will be made to publish the findings of the study and will be disseminated through different scientific journals.

4. RESULT

4.1. Socio-demographic characteristics

Out of 550 sampled participants, 507 respondents had responded for interviews and gave complete data, which makes the response rate of 92.1%. The mean age of the respondents was 20.9 ± 2.4 years. The majority of the respondents 371 (73.2 %) were between the age of 20-24 and 486 (95.8 %) were Muslim religion followers. Regarding to the educational status of respondents 224 (44.2 %) and 193 (38.1 %) their husbands had no formal education. More than two third of the participants were house wives and one- third of the participants were in the poor wealth quintile.

Table 2 Socio-demographic characteristics of young married women in Haramaya HDSS, Eastern Ethiopia, 2020

Characteristics	**Categories**	**Frequency**	**Percentage (%)**
Age	15-19	136	26.8
	20-24	371	73.2
Religion	Muslim	486	95.8
	Other*	21	4.2
Educational status of women	No formal education	224	44.2
	Primary school education	187	36.9
	Secondary school education and above	96	18.9
Women occupation	House wife	366	72.2
	Merchant	67	13.2
	Student	28	5.5
	Government employee	35	6.9
	Farmer	11	2.2
Husband's educational status	No formal education	193	38.1
	Primary school education	169	33.3
	Secondary school education and above	145	28.6

(Continued)

Table 2 (continued)

Characteristics	Categories	Frequency	Percentage (%)
Husband's occupation	Farmer	358	70.6
	Merchant	77	15.2
	Government employee	51	10.1
	Other*	21	4.1
Family wealth index	Poor	170	33.5
	Medium	168	33.1
	Rich	169	32.9

Note: *"Other" husband occupation category includes daily laborer and no job and Religion category includes orthodox and protestant.

4.2. Reproductive history

The age of the respondents at first marriage ranges from the age 13 to 24 years. The mean age of women at marriage was 17.5 ± 2.1. Among 507 young married women, 439 (86.5%) women have ever been pregnant. The mean age of the respondents at first delivery was 18.3 ± 1.9 years. Thirty one (7.1%) and thirty five (7.9%) of the respondents had a history of child loss and abortion. The mean desired number of children among the respondents was 6.2 children, 301(60.2%) young women seek above 6 children in their life time and 7 (1.4%) women haven't decided yet. 89 (17.5%) women were pregnant at the time of the study.

Table 3 Reproductive characteristics of young married women in Haramaya HDSS, Eastern Ethiopia, 2020

Variables	**Categories**	**Frequency**	**Percentage**
Age at marriage	< 18	241	47.5
	≥ 18	266	52.4
Number of pregnancy	0 (never been pregnant)	68	13.4
	Pregnant one time	172	33.9
	Two and above	267	52.3
Number of live birth	0 (No child)	99	19.5
	One child	178	35.1
	Two and above	230	45.3
History of dead child (n= 439)	Yes	31	7.1
	No	408	92.9
History of abortion (n= 439)	Yes	35	7.9
	No	404	92.1
Desired number of children	0-3	37	7.3
	4-5	162	31.9
	≥6	301	59.3
	Didn't decide	7	1.3
Pregnant /postpartum amenorrheic	Yes	148	29.1
	No	359	70.8
Current pregnancy/last birth (n=148)	Intended	120	23.7
	Mistimed	28	5.5
	Unwanted	-	

4.3. Knowledge and use of contraception

About 85% of study participants knew at least one method of contraception. Injectable 356 (82.79 %), implant 325 (75.5 %) and pills 313 (72.7 %) were the most commonly known contraceptive methods while only 29 (6.7 %) knew emergency contraception. Meanwhile, natural methods such as Rhythm method, and withdrawal were mentioned by 33 (7.6 %) and 8 (1.8 %) respectively of young married women in the study area.

On the other hand, 241 (47.5 %) have ever used one or another type of contraceptive. The most favorite modern contraceptive ever practiced among young married women was Injectable 139 (57.6 %). 180 (35.5%) young married women are currently using contraceptive and 97(53.8%) of women currently using contraceptives prefers Injectable followed by about 52 (28.8%) and 29 (16.1%) of women use Implant and Pills, respectively.

The most often cited source of information on contraceptives reported by the respondents is Radio 291(67.7 %), 191(44.4%) young married women gain information from HEW and Television 105(25.6 %). The other main source of information on contraceptives was through community event or conversation 199(46.2%). Printed materials such as newspaper and poster/leaflets are cited as sources of contraception methods by 24 (5%) and 41 (9.5%) of married young women in the study area respectively.

Table 4 Knowledge and general information about contraception among young married women in Haramaya HDSS, Eastern Ethiopia, 2020

Variables	**Categories**	**Frequency**	**Percentage**
Ever heard about contraceptives	Yes	430	84.8
	No	77	15.2
Do you know a place where you can get contraceptive (n=430)	Yes	396	92.1
	No	34	7.9
Discussed family planning with health providers in the past 12 month (n=430)	Yes	275	67.9
	No	155	32.1
Discussed about contraception with husband (n=430)	Yes	256	50.4
	No	251	49.5
Husbands attitude towards contraception (n=256)	Supportive	179	69.9
	Not supportive	75	29.2
	I don't know	2	0.8
If not supportive what's his reason (n=75)	Religious believes	48	64.8
	Wants more children	17	22.9
	Not aware of contraceptive	4	5
	I don't know	6	8.1

4.4. Magnitude of unmet need for contraception

Out of 359 women 127 (25.1 %) had no need for contraception as they were planning for a child in near future. Contraceptive needs of 180 (35.5%) women had been met as they were using family planning methods. The prevalence of unmet need among young married women in this study was 154 (30.3 %, 95% CI: 26.3 – 34.4) all had unmet need for spacing.

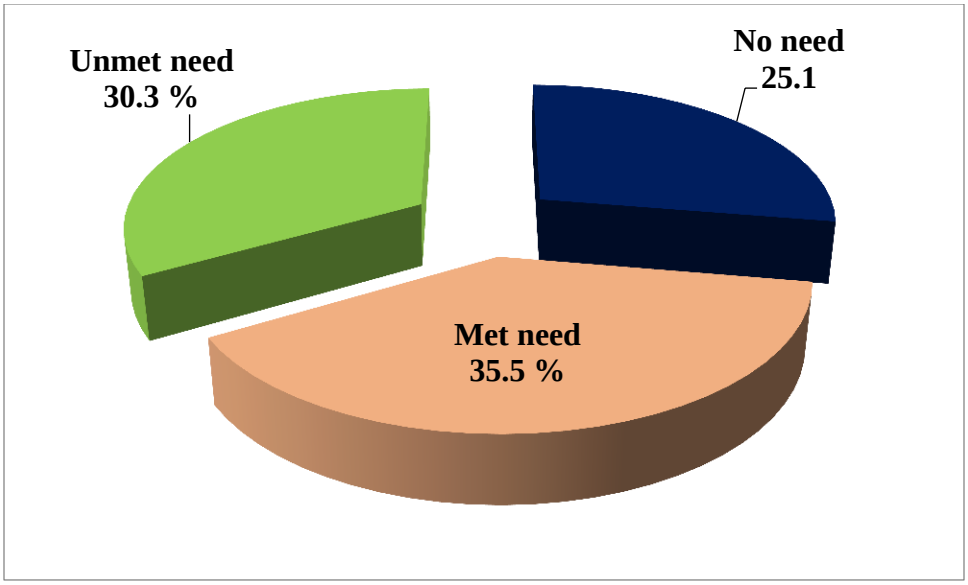

Figure 4 Percent distribution of need for contraception among young married women in Haramaya HDSS, Eastern Ethiopia, 2020

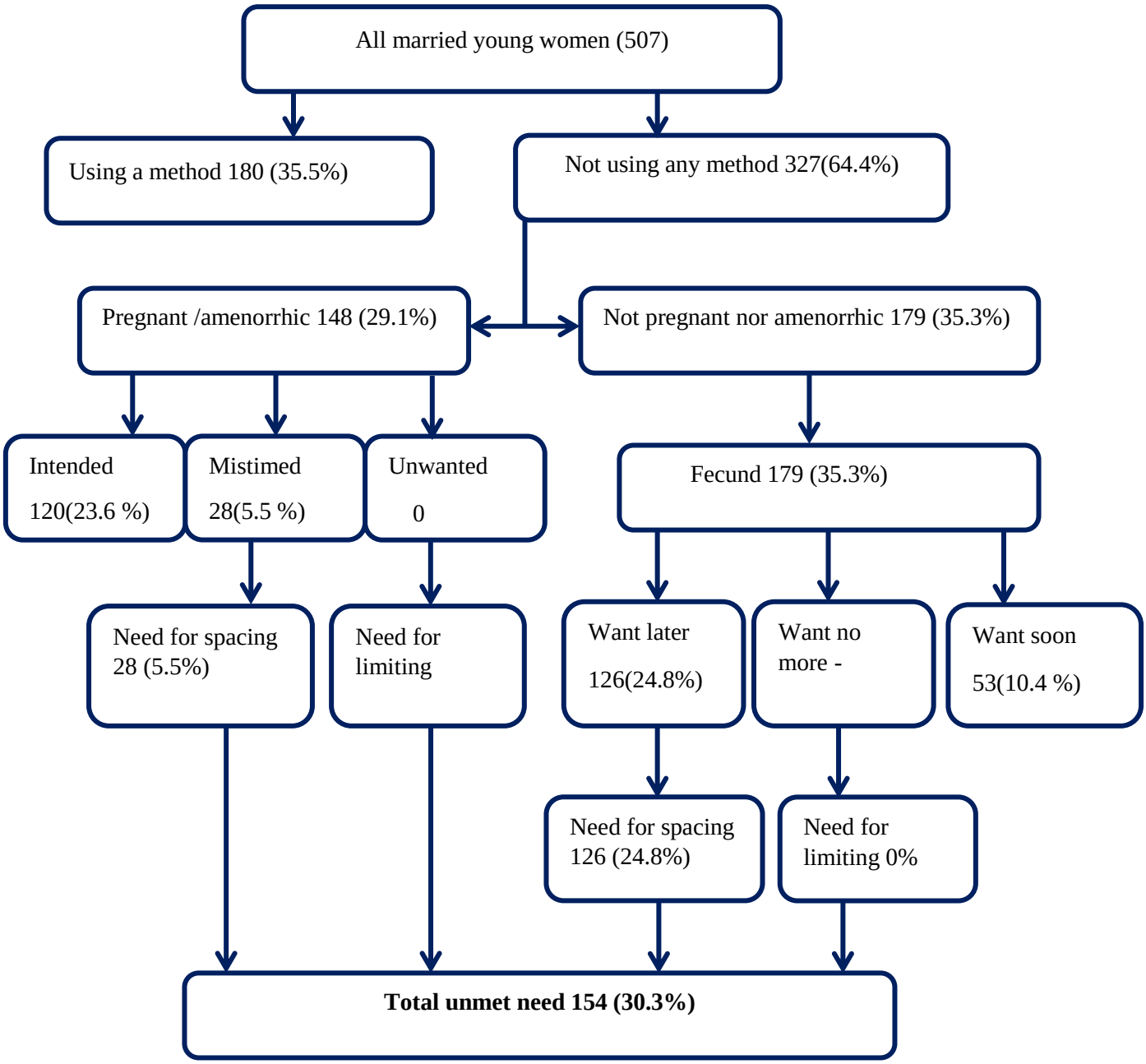

Figure 5 Algorithm of unmet need of contraception among young married women in Haramaya HDSS, Eastern Ethiopia, 2020

Figure 6 Presents reasons for non-use of contraception among women with unmet need for family planning. Fear of side effects (34.5 %), Husband's disapproval of contraception (31.4%) and religious beliefs (29.7 %) are were major reasons for not using contraceptives among young women with an unmet need.

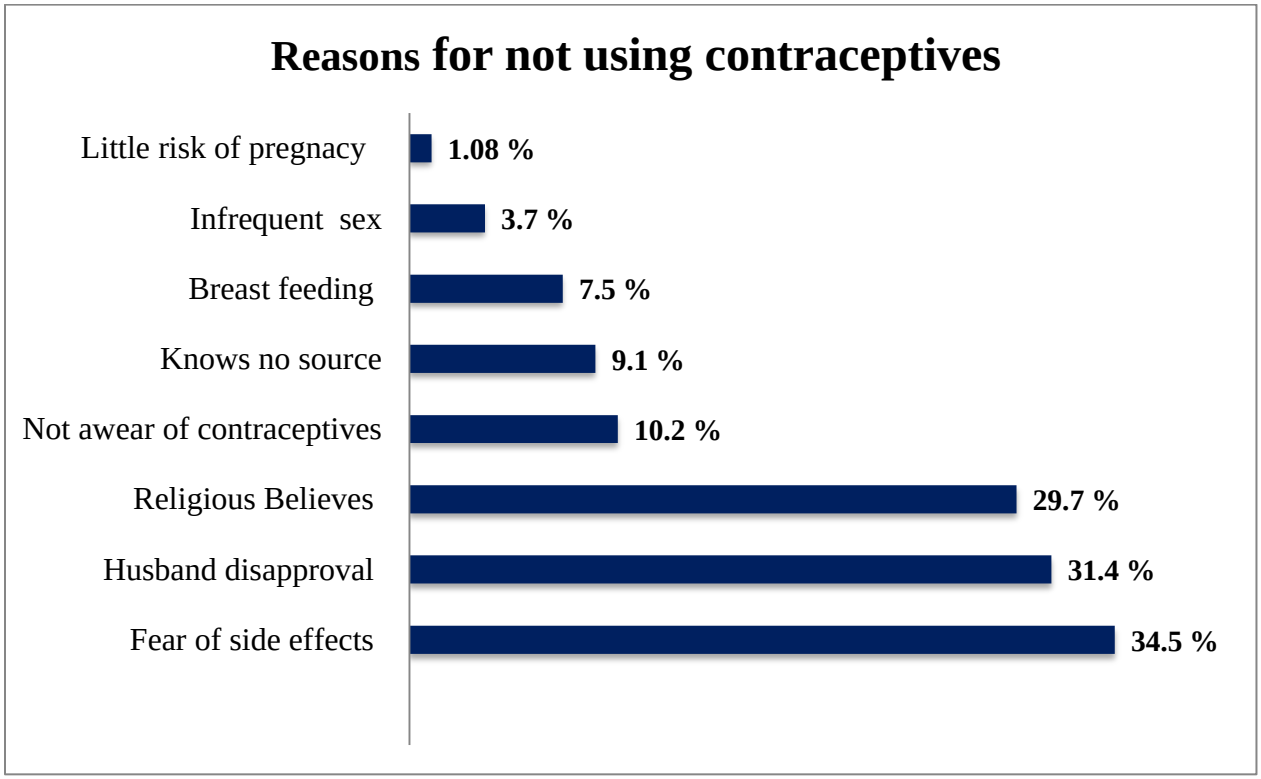

Figure 6 Reasons for not using contraceptives among young married women in Haramaya HDSS, Eastern Ethiopia, 2020.

The prevalence of perceived internalized stigma towards family planning use among young married women in the study area is 167(38.8%).

4.5. Factors associated with unmet need for contraception

In the analysis of bi-variable logistic regression, variables with P-Value of < 0.25 were women's' age, respondent's educational status, women occupation, husband's educational status, discussion about family planning with health provider in the past 12 months, husband's attitude towards contraception, ever use of contraceptives, age at first marriage, number of living children and perceived internalized stigma to family planning use.

Table 5 Bivariate binary logistic regression analyses for unmet need for contraception and associated factors among young married women in Haramaya HDSS, Eastern Ethiopia, 2020

Variables	Unmet need		Crude OR	P- value
	Yes	No		
Age of women				
15-19	59(43.3%)	77(56.6%)	2.23(1.47-3.35)	0.000
20-24	95(25.6%)	276(74.3%)	1	1
Women educational status				
No formal education	81(36.1%)	143(63.9%)	1	1
Primary school education	54(28.9%)	133(71.1%)	0.7(0.48- 1.12)	0.118
Secondary school education and above	19(19.8%)	77(80.2%)	0.4(0.24- 0.75)	0.004
Women occupation				
House wife	125(34.1)	241(65.8%)	3.1(1.17- 8.21)	0.022
Merchant	13(19.7%)	53(80.3%)	1.47(0.4- 4.53)	0.501
Student	4(13.7%)	25(86.3%)	0.96(0.23-3.96)	0.955
Government employee	5(14.3%)	30(85.7%)	1	1
Farmer	7(63.6%)	4(36.4%)	10.5(2.23- 49.5)	0.003
Husbands' educational status				
No formal education	66(34.2%)	127(65.8%)	2.27 (1.35- 3.79)	0.001
Primary school education	61(36.0%)	108(63.9%)	2.46 (1.46- 4.16)	0.001
Secondary school education and above	27(18.6%)	118(81.4%)	1	1
Wealth status				
Poor	51(30%)	119(70%)	1	1
Medium	50(29.7%)	118(70.3%)	0.98(0.62 -1.57)	0.962
Rich	53(31.3%)	116(68.6%)	1.0 (0.67-1.69)	0.786
Discussed about FP with health provider in the past 12 month				
Yes	51(18.5%)	224(81.5%)	0.44 (0.30-0.65)	0.000
No	103(44.3%)	129(55.6)	1	

Husbands attitude towards contraception				
Supportive	24(13.4%)	155(86.6%)	0.32(0.16-0.612)	0.001
Not supportive	25(33.4%)	50(66.6%)	1	1
Ever used contraception				
Yes	31(12.8%)	210(87.1%)	1	1
No	123(46.3%)	143(53.7%)	5.8(3.72- 9.11)	0.000
Age at marriage				
< 18 years	83(34.3%)	159(65.7%)	1	1
≥ 18 years	72(27.1%)	194(72.9%)	0.7(0.48-1.03)	0.089
Number of living children				
0(never gave birth)	32(32.3%)	67(67.6%)	1	
Pregnant one time	57(32.0%)	121(67.9%)	0.98(0.58-1.66)	0.959
Two and above	65(28.4%)	164(71.6%)	0.84(0.5-1.4)	0.459
Desired number of children				
0-3	15(40.5%)	22(59.5%)	1.67(0.83-3.38)	0.137
4-5	49(30.2%)	113(69.7%)	1.06(0.70- 1.61)	0.705
≥6 children	86(28.6%)	215(71.4%)	1	1
Didn't decide	4(57.1%)	3(42.8%)	3.27(0.71-14.9)	0.120
Perceived internalized stigma towards FP use				
Yes	45(26.9%)	122(73.1%)	0.77(0.51-1.16)	0.240
No	109(32.0)	231(67.9%)	1	1

In the multivariable analysis, age of women, husband's educational status, husband's attitude towards contraception and ever use of contraception were significantly associated with unmet need for contraception. Married adolescents (15-19 years) were 2.02 times more likely to have unmet need for contraception than married women in 20-24 age groups (AOR=2.02, 95% CI: 1.20-3.41). Husbands with primary level of education (AOR=2.43, 95% CI: 1.28-4.5) were more likely to have unmet need for contraception than husbands who attended secondary education and above. Husbands' attitude is also significantly associated with unmet need for contraception. Women whose husband have supportive attitude towards contraception were 0.44 times less likely to have unmet need for contraception than their counterparts (AOR=0.44, 95% CI: 0.20-0.92). Women who have never used a contraceptive before were 3.3 times more likely to have unmet need than women who have ever used contraceptive (AOR= 3.3, 95% CI: 1.86- 5.73).

Table 6 multivariable binary logistic regression analyses for unmet need for contraception and associated factors among young married women in Haramaya HDSS, Eastern Ethiopia, 2020

Variables	**Unmet need**		**Crude OR**	**Adjusted OR**
	Yes	**No**		
Age of women				
15-19	59(43.3%)	77(56.6%)	2.23(1.47-3.35)	2.02(1.2-3.41)*
20-24	95(25.6%)	276(74.3%)	1	1
Husbands' educational status				
No formal education	66(34.2%)	127(65.8%)	2.27 (1.35- 3.79)	1.56(0.83-2.93)
Primary school education	61(36.0%)	108(63.9%)	2.46 (1.46- 4.16)	2.43(1.28-4.5)*
Secondary school education and above	27(18.6%)	118(81.4%)	1	1
Husbands attitude towards contraception				
Supportive	24(13.4%)	155(86.6%)	0.32(0.16-0.612)	0.44(0.2-0.92)*
Not supportive	25(33.4%)	50(66.6%)	1	1
Ever used contraception				
Yes	31(12.8%)	210(87.1%)	1	1
No	123(46.3%)	143(53.7%)	5.8(3.72- 9.11)	3.3(1.86-5.73)*

* Significant at P-value < 0.05

5. DISCUSSION

This study showed that one-third of young married women had an unmet need for contraception. Age, ever use of contraception, husband's attitude towards contraception and husbands educational level were significantly associated with unmet need for contraception.

The finding of this study revealed that 30.3% (95% CI: 26.3 – 34.4) of the respondents had unmet need for contraception. This study detected the prevalence for unmet need for contraception among young married women to be higher than what is reported in the National data, 20.5% among married adolescents and 18.5 % among 20-24 age groups (Central Statistical Agency and Icf, 2017). The variation was due to setting difference, as the national demographic survey was done both in urban and rural settings of Ethiopia where unmet need in urban areas of Ethiopia is lower than the rural. However this study was conducted among rural residents, leading to higher estimates of unmet need than the national data pooling rural and urban women together.

Comparable results were seen by Regional estimates from SSA which reported a prevalence of unmet need ranging from 14.7% to 45.7% among young married women for instance unmet need among young married women in Eritrea (34.8%), Kenya (30.2%), and Uganda (34.3%) (MacQuarrie, 2014). This is due to the sexual and reproductive health services are not meeting the needs of sub-Saharan young population (Naidoo et al., 2019). The prevalence of this study was also in line with prior researches done in rural Tigray 32.5% among married adolescents and 28% among youth 20-24 Jigjiga city 29% and in Kersa the prevalence of unmet need among young married women was 34.5% (Yibrah and Gabriel, 2018). This might be due to socio-cultural similarities of the study areas and husbands negative attitude towards contraception use.

Age was observed to be a factor leading to having a higher unmet for contraception as was found in other studies in Nepal, Gonji Kolela District, Ethiopia and Nigeria (Lamichhane, 2017, Biadgie et al., 2019, Fagbamigbe et al., 2018). Unmet need for contraception is significantly lower among married youth (20-24) as compared with adolescent women aged 15-19. Married adolescents (15-19 years) do have unmet need probably due to lack of knowledge on contraceptives. Knowledge and awareness can guide adolescent decision-making by expelling misconceptions and clarifying questions. Yet adolescents tend to be poorly informed about reproductive matters(Chandra-Mouli et al., 2014). Even when adolescents can obtain

contraception, social pressure may prevent their use. In many places young women are under pressure to conceive and bear children soon after marriage to prove their fertility, begin adulthood, secure their marriage and gain respect (Sedgh et al., 2016).

Women's previous use of family planning was also found to be significantly associated with unmet need for contraception. The odds of having an unmet need for contraception among currently married women who never used contraception before was three times more likely compared to married women who ever used family planning before. This is supported by the research done in shire enda selase, North Ethiopia and Tiro Afeta District, South West Ethiopia (Yibrah and Gabriel, 2018, Solomon et al., 2019). This might be from the fact that, previous users are accustomed with the service and get information from the health providers. This enables them to have adequate family planning knowledge leading to the increment in the practice of the contraceptive methods.

In the current study statistical association was established between husbands attitude and unmet need. A woman whose husband had supportive attitude towards contraception was 0.44 times less likely to have an unmet need than a woman whose husband had not supportive attitude. A similar conclusion was arrived in a study done in Awi zone, Amhara region and Cameron(Genet et al., 2015, Ajong et al., 2015). Husbands are generally perceived as the key decision-makers when it comes to contraception. For younger women, even the perception that their husband/partner supports family planning had a positive impact on their contraceptive use (Prata et al., 2016).

Husband's education can also reduce the likelihood of, unmet need for contraception. Husbands with lower educational level (primary education) have the highest unmet need for contraception comparing to husbands with educational level of secondary and above. This study corroborates with previous studies conducted in Sudan and Pakistan (Asif and Pervaiz, 2019, Ali and Okud, 2013). Husband's relative educational attainment affects decisions regarding contraceptive use because education enable men to have a better knowledge regarding family planning methods and the importance of managing family size. On the other hand their educational status is interrelated with socio economic empowerment which increases access and utilization of health care services as a result can have better access to family planning services (Biadgie et al., 2019).

6. LIMITATION AND STRENGTH OF THE STUDY

6.1. Strength of the Study

- The study used standard tool to assess the outcome variable.

6.2. Limitation of the study

- Data was obtained through a cross-sectional study so causation could not be established.
- The study might be subjected to recall bias. This might underestimate the burden of unmet need for contraception in the study area.
- Knowledge about contraception was not measured with comprehensive questions.
- Since the pregnancy status of women was collected through self-report, it might over or underestimate the prevalence of unmet need for contraception.

7. CONCLUSION AND RECOMMENDATION

7.1. Conclusion

Unmet need for contraceptive use is still high indicating more to be done to ensure that family planning programs are effective and meet the need of young women. This analysis has shown that unmet need is driven by various factors which include being adolescent, husband's level of education, never use of contraceptives, and husbands supportive attitude towards contraception were factors associated with unmet need.

7.2. Recommendation

East Hararghe regional health office

- The government need to strengthen programming and polices on ASRH for married adolescents in rural community.
- The local government should put efforts to create awareness in rural areas and implement legal age of marriage.

Health care providers

- Health extension workers should outreach and strengthen awareness creation among young women and their husbands about the benefits of contraception. Besides couples FP counseling together and joint decision making should be encouraged.

Future researchers

- Factors affecting unmet need are complex and cannot only be established using qualitative studies. It is vital to undertake more detailed qualitative studies and provide greater explanatory detail to unravel the underlying factors behind the high unmet need.

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9. ANNEX

9.1. Annex I. Participants information sheet and informed voluntary consent form for young women

My name is …….. I am working as a data collector for the study being conducted in Haramaya woreda by Ms. Saba Hailu who is studying for her master's degree at Haramaya University, the college of health and medical sciences. I kindly request you to lend me your attention to explain you about the study and being selected as the study participant.

The study title: Unmet need for contraception among young married women in Haramaya woreda HDSS from March 1-30, 2020.

Purpose/aim of the study: The finding of this study can be used as a guide for health care providers and health institution to take the appropriate intervention. It will be also used for the regional health bureaus to plan and set strategies and expand services about health information dissemination. Moreover, the aim of this study is to write a thesis as a partial requirement for the fulfillment of a Master's program in Reproductive health for the principal investigator.

Procedure and duration: I will be interviewing you using a questionnaire to provide me with pertinent data that is helpful for the study. There are 45 questions to answer where I will fill the questionnaire by interviewing you. The interview will take about 30 minutes.

Risks and benefits: The risk of participating in this study is very minimal, but only taking a few minutes from your time. There would not be any direct payment for participating in this study. But the findings from this research may reveal important information for your region.

Confidentiality: The information that will be provided will be kept confidential. There will be no information that will identify you in particular. The finding of the study will be general for the study community and will not reflect anything particular of individual person. The questionnaire will be coded to exclude names. No reference will be made in oral or written reports that could link you to the research.

Rights: Participation for this study is fully voluntary. You have the right to declare to participate or not in this study. If you decide to participate, you have the right to withdraw from the study at

any time and this will not label you for any loss of benefits which you otherwise are entitled. You do not have to answer any question that you do not want to answer.

Contact Address

If there are any questions or enquires any time about the study or the procedures, please contact:

Principal investigator: Phone +251913452855, Email: sabahailu06@gmail.com

Institutional health research Ethics Review committee (IHRERC): office phone 0254662011 or P.O.Box 235, Harar-Ethiopia

Declaration of informed voluntary consent

I have clearly understood the purpose of the research, the procedures. The risks and benefits, issues of confidentiality, the rights of participating and the contact address for any queries. I have been given the opportunity to ask questions for things that may have been unclear. I was informed that I have the right to withdraw from the study at any time or not to answer any question that I do not want. Therefore, I declare my voluntary consent to participate in this study.

Name and signature of the participant: _____

Name and signature of the data collector _____

Thank you for your cooperation!!

9.2. Annex III. Participants information sheet and informed voluntary consent form for young women (Afan oromo version)

Maqaan koo_____ Anis sassaabaa/duu daataa qo'annoo ganda keessan irrati barattuu digrii lammaffaa Yuniversitii Haramayaa kan taate Saaba Hayilu dhaan geeggeeffamuuti. Isinis garee qo'annoo keenyaa taatanii waan filatamtaniif waa'ee qo'annoo kanaa isiniif ibsuuf gurraa fi qalbii keessan akka naaf kennitan kabajaan isin gaafadha Waraqaan qorannoo kun yuunivarsiitii Haramayaa kolleejjii saayinsii fayyaatti hawaasaatiin

Mata duree Qorannichaa:- Milkaayina dhabuu fayyadama mala qusannaa maatii fi dhimmoota wal qabatanii jiran dubartoota aanaa Haramya ta'anii umurii 15-24 jiran irratti.

Kaayyoo Qorannichaa:- Kaayyoon qorannoo kanaa inni guddaan Fayyaa Hawaasaatiin Digrii 2^{ffaa} argachuu yoo ta'u, bu'ura qorannoo kanaa kan tahee Milkaayina dhabuu fayyadama mala qusannaa maatii fi dhimmoota wal qabatanii maal akka fakkattu qorachufi rakkoowwan dhufaanin wal qabattu addan basuun karoora fuula duraaf bu'ura ka'uudha.

Adeemsa qorannichaafi yeroo innii fudhatu. Qorannoon kun kan adeemsifamu Haramayaa Yunivarsiiti keessatti yoo ta'u gaaffileen qorannoo kanaa irra caalattii mata durewwaan armaan gadii kanin siif dhihessuu irratii xiyyeefata.kunis haala waligalaa hawasumma, haala dhunfa fi haala sirna tajajila fayya kan of kessatii qabatanidha.kanaaf gaaffiilee kanaaf deebii nu kennun daqiqaa 40 tilmamaan waan fudhatuuf kabajaan akka nu wajjin turtan isiin gaffanna.

Bu'aa fi miidhaa Qorannoon kun fiduu daanda'u

Qarannoo kana keessatti hirmaachuu fi odeeffannoo keennuun midhaa tokkollee waan isinirraan ga'u hin qabu. Garuu qoraannoo kun yeroo kessan irraa hanga tokko isin jaalaa fudhata. Qorannoo kana irratti hirmaachuun wanti kafalamu ykn kennamuu humaatuu hin jiru. Garuu bu'aan qorannoo kanaa odeffannoo waltawaa qaamolee motummaas ta'ee miti motummaa roga kanarratti hojjetaniif argamsisuun karoora fula duraaf bu'ura kaa'uu danda'a.

Iccitti Odeeffaniichaa

Odeeffannoon qorannoo kanaaf funaanama jiruu hunduu iccittiin isaa kan eegamedha. Namoonni odeeffannoo kana yammuu kennan maqaan isaanii hin barreeffamu, garuu odefannoon isaanii mallattoo addaan gargar baafamee taa'a. Itti dabaluun odeeffannoo kana nama qoranna adeemsisuun ala namni kamiyyuu akka hin-arginettii taa'a. akkasumaas odefannon kun dhimma barbadameef qofaaf ola.

Mirrga qorannoo irratti hirmaachuufi hirmachuu dhisuu

Qorannoo kana irratti hirmachuufi hirmaachu dhisuun guutumaa gututtii fedhii irratti waan hundaa'eef gaaffii debiisuu hin barbaannee irra taruu dandessuu akkasumaas yeroo feetanitti gafficha addaan kutanii bahuun ni dandaa'ama.

Tessoo: Waa'ee qoraanno kana ilaalchisee gaafiis ta'ee yaada yoo qabaattan teessoo armaan gadii kanaan nu argachuu dandessuu.

Maqaa qorataa:- Saaba Hayluu

Tessoo:- Harar/Haramaya Yuniversitii

Bilbila:- 0913452855

Email:- sabahailu06@gmail.com

Institutional research ethics review committee (IHRERC): lakk.Bilbilaa: 0254662011

Lakk.Sanduqaa postaa: 235, Harar

Koree J/Galeessa Qorannoofi Qoranaa

Yuunivarsistii Haramayaa (LSP 235) Bilbila 025-666/899

Yuniversitii Haramaya Kollejji Saayinsii Fayya

Hayyamamoota’uu hirmaattoota mirkaneessu

Unkaa hirmaattotaa sirriitti hubadheen jira. Akkasumaas kaayyoo adeemsaa, iccittii, mirgaa fi buaa qorannoo kanaa sirrittii hubadheen jira.wantoota naaf hin galiin gaafachuufiis carraan naaf kennamera.kanaaf odefannoo armaan olittii kenname kana bu’uura godhachuun qoranno kana irrattii hirmachuuf fedhii kotiin akka armaan gadii kanatii mallattoo kiyyaaniin mirkanessa

Mallatoo dura hirmattota _____Guyyaa _____

Mallatoo odefannoo funaanaa_____guyyaa_____

9.3. Annex V. English Version Questionnaire

Instructions: Circle the code corresponding to the answer for each question

Code _____ Date (dd/mm/yyyy): ____/__/___/___

No	Questions	Coding and categories	Skip
Section -1 Socio demographic Characteristics			
101	Age		
102	Religion	1. Muslim 2. Orthodox 3. Protestant 4. Catholic 5. Other _____	
103	Educational status	1. No formal education 2. Primary school education 3. Secondary school 4. Technical school 5. Higher education	
105	What is your Occupation?	1. House wife 2. Merchant 3. Student 4. Government employee 5. NGO 6. Private employee 7. Farmer 8. Other specify _____	
106	Husbands educational status	1. No formal education 2. primary school 3. secondary school 4. technical school 5. higher education 6. don't know	
107	Husband occupation	1. Merchant 2. Farmer 3. Student 4. Government employee 5. NGO 6. Private employee 7. NO job 8. Other specify_____	

108	Monthly income	_____		
	House hold characteristics			
109	Does your household have the following?			
	a. Electricity	1. Yes	0. No	
	b. A radio	1. Yes	0. No	
	c. Television	1. Yes	0. No	
	d. Solar	1. Yes	0. No	
	e. Mobile phone	1. Yes	0. No	
	f. Kerosene lamp	1. Yes	0. No	
	g. Mitad	1. Yes	0. No	
	h. Refrigerator	1. Yes	0. No	
	i. Agricultural land	1. Yes	0. No	
	j. How many hectares			
110	How many of the following animals does the household own If none record 0			
	a. Milk cows, oxen			
	b. Cattle			
	c. Horses ,donkey or mule			
	d. Goats			
	e. Sheep			
	f. Chicken			
	g. Other specify			
111	Main source of drinking water	1. Piped to yard/plot 2. Protected well 3. Unprotected well 4. Protected spring 5. Unprotected spring 6. Dug well 7. Other specify _____		
112	Type of toilet facility	1. No facility / bush / field 2. Pit latrine with slab 3. Pit latrine without slab/ open pit		
113	Do you share this toilet facility with others households?	1. Yes 0. No		

Section-2 Knowledge and use of contraceptives			
201	Have you ever heard about contraceptives	1. Yes 0. No	If no skip to 301
202	From where did you get the information from?		
	a. Radio	1. Yes 0. No	
	b. Television	1. Yes 0. No	
	c. News paper	1. Yes 0. No	
	d. Poster/leaflets	1. Yes 0. No	
	e. Community event/ conversation	1. Yes 0. No	
	f. Mobile phone	1. Yes 0. No	
	g. HEW	1. Yes 0. No	
	h. Other_____		
203	Which methods do you know?		
	a) Pills	1. Yes 0. No	
	b) Implant	1. Yes 0. No	
	c) Injectable	1. Yes 0. No	
	d) IUD	1. Yes 0. No	
	e) Male condom	1. Yes 0. No	
	f) Female condom	1. Yes 0. No	
	g) Female sterilization	1. Yes 0. No	
	h) Male sterilization	1. Yes 0. No	
	i) Emergency contraception	1. Yes 0. No	
	j) Lactational amenorrhea method	1. Yes 0. No	
	k) Rhythm method	1. Yes 0. No	
	l) Withdrawal	1. Yes 0. No	
204	Do you know of a place where you can obtain a method of family planning?	1. Yes 0. No	
205	Have you discussed about family planning with health providers in the past 12 month	1. Yes 0. No	
206	Have you ever had discussion about contraception with your husband	1. Yes 0. No	If no skip to 209
207	Your husband's attitude towards contraceptive use	1. Supportive 2. Not supportive 3. Don't know	

208	If not supportive, what is his reason?	1. Religious beliefs 2. Wants more children 3. Not aware of contraceptives 4. I don't know 5. Other_____	
209	Have you ever used anything or tried in any way to delay or avoid getting pregnant?	1. Yes 2. No	If no skip to 301
210	Which methods have you ever used?		
	a. Pills	1. Yes 0. No	
	b. Implant	1. Yes 0. No	
	c. Injectable	1. Yes 0. No	
	d. IUD	1. Yes 0. No	
	e. Male condom	1. Yes 0. No	
	f. Female condom	1. Yes 0. No	
	g. Female sterilization	1. Yes 0. No	
	h. Male sterilization	1. Yes 0. No	
	i. Emergency contraception	1. Yes 0. No	
	j. Lactational amenorrhea method	1. Yes 0. No	
	k. Rhythm method	1. Yes 0. No	
	l. Withdrawal	1. Yes 0. No	

Section-3 Reproductive history

301	How old were you when you got married	_____	
302	Have you ever got pregnant?	1. Yes 0. No	If no skip to 317
303	How many times did you get pregnant?	_____	
304	How old were you when you give birth to your first child		
305	How many children do you have?	_____	
306	Have you experienced child death	1. Yes 0. No	If no skip to Q.309
307	If you have experienced child death, how many children?		
309	Have you ever experienced abortion	1. yes 2. no	If no skip to Q.311
310	How many times	_____	

311	Desired number of children	_____ children	

312	Are you currently pregnant?	1. Yes 2. No 3. Not sure	If No/ unsure skip 314
313	At the time you became pregnant, did you want to become pregnant then (intended), did you want to wait until later, or did you not want to have any / any more children at all?	1. Intended 2. Later 3. Not at all	
314	If not pregnant / unsure are you currently doing something or using any method to delay or avoid getting pregnant	1. Yes 0. No	
315	When was your MOST RECENT live birth?	_____month _____year	
316	Are you currently breastfeeding?	1. Yes 0. No	
317	When you got pregnant with your recent child, did you want to become pregnant then (intended), did you want to wait until later, or did you not want to have any / any more children at all?	1. Intended 2. Later 3. No more	
318	Has your menstrual period returned since the birth of your last child?	1. Yes 0. No	
319	***Not pregnant/ unsure*** Now I have some questions about the future. Would you like to have a/another child or would you prefer not to have any / any more children?	1. Have another child 2. No more 3. Don't know	→ 321
320	***If not pregnant/ unsure*** How long would you like to wait from now before the birth of a/another child?	1. < 2 years 2. > 2 years 3. Undecided	
321	Are you using anything or trying any way to delay or avoid getting pregnant	1. Yes 2. No	→ Q.323
322	Which method or methods are you using?		
	a. Pills	1. Yes 0. No	
	b. Implant	1. Yes 0. No	
	c. Injectable	1. Yes 0. No	

	d. IUD	1. Yes 0. No	
	e. Male condom	1. Yes 0. No	
	f. Female condom	1. Yes 0. No	
	g. Female sterilization	1. Yes 0. No	
	h. Male sterilization	1. Yes 0. No	
	i. Emergency contraception	1. Yes 0. No	
	j. Lactational amenorrhea method	1. Yes 0. No	
	k. Rhythm method	1. Yes 0. No	
	l. Withdrawal	1. Yes 0. No	
323	You said that you do not want a child sooner / Anymore children and that you are not using a method to avoid pregnancy. Can you tell me the reason why you are not using a method to prevent pregnancy?	1. Fear of side effects 2. Infrequent sex 3. Knows no source 4. Husband disapproval 5. Religion prohibition 6. Not aware of contraceptives 7. Breast feeding 8. Less perceived risk of pregnancy 9. I can't get pregnant 10. Other _____	

401. Section -4 Perceived internalized stigma					
Suppose that you were planning to get services related to family planning next week. Please keep this scenario in mind and tell me if you agree or disagree	Strongly disagree	Disagree	Neutral	Agree	Strongly disagree
a) I would feel embarrassed about wanting more information about FP services					
b) I would be afraid of being seen by someone I knew at the facility					
c) I would be worried about what my parents would say if they found out that I needed FP services					
d) I would be worried about what people in my community would say about me if they found out I needed FP					
e) I would feel embarrassed talking to a provider about FP					

Thank you!!

9.4. Annex VI. Afan oromo version questionnaire

Gaafillen Kun kan qophawaan Milkaayina dhabuu fayyadama mala qusannaa maatii fi dhimmoota wal qabatanii jiran dubartoota aanaa Haramya ta'anii umurii 15-24 jiran irratti.

Qajelfama: gaafille kana dubisitti kan sirri ta'eetti mari

Lakk	**Gaaffii**	**Filannoowwan deebii**	**Darbii**
Kutaa 1affa:Gaaffilee Hawwaasummaa fi Qabeenya waliin wal qabatan			
101	Umriin kee yeroo ammaa meeqa?	____ waggaa	
102	Amantaan kee maalii?	1. Muslima 2. Orthodoxi 3. Protestantti 4. Kattoliki 5. Kanbirra (Ibsi)	
103	Sadarkaan barnoota keetii ol'aanaan meeqa?	1. Mana barnootaa seenee hin beeku 2. Sadarkaa 1ffaa 3. Sadarkaa 2ffaa 4. Teekniki baradhe 5. Sadarkaa Barnoota ol'a	
105	Dalagaa	1. Haadha manaa qofa 2. Daldaltuu 3. Barattuu 4. Hojjettuu mootummaa 5. Hojjettuu dhaabbata mit-mootummaa 6. Hojjettuu dhunfaa 7. Qotee bulaa 8. kanbirra__	
106	Sadarkaa barnoota abbaa warraakee?	1. Mana barnootaa seenee hin beeku 2. Sadarkaa 1ffaa 3. Sadarkaa 2ffaa 4. Teekniki baradhe 5. Sadarkaa Barnoota ol'aanaa 6. Hin beeku	
107	Dalagaan abbaa warraakee maali?	1. Daldalaa 2. Qotee bulaa 3. Barataa	

		4. Hojjetaa mootummaa 5. Hojjetaa dhaabbata mit-mootummaa 6. Hojjetaa dhunfaa 7. Hojii hin qabu 8. Kan biraa (himi)___	
108	Galii kan baatii tokkoo	Qarshii _____	

109	Maatiin kee kanneen armaan gadii ni qabaa?				
	a.ifaa(elektirikii)		1. Eyyee 0. Lakki		
	b. Raadiyoo		1. Eyyee 0. Lakki		
	c. Televijiina		1. Eyyee 0. Lakki		
	d. soolaara		1. Eyyee 0. Lakki		
	e. Moobayilii		1. Eyyee 0. Lakki		
	f. Faanusa		1. Eyyee 0. Lakki		
	g. Qibaabaa		1. Eyyee 0. Lakki		
	h. frijja		1. Eyyee 0. Lakki		
	h. lafa qonnaa		1. Eyyee 0. Lakki		
	i. Qindii meeqa?		_____		
110	Beeyladaa keessaa kanneen armaan gadii ni qabduu? (lakkoofsan)				
	a. Loon aananii		e. Hoolaa		
	b. Jabbii		f. Lukkuu		
	c. Harree		g. kan biroo ibsi		
	d. Re’ee				
111	Bishaan dhugaatii eessaa agkattan?		1. bombaa 2. bishaan tuubboo ykn eelaa cuqqaalamaa 3. bishaan tuubboo ykn eelaa kan hin cuqqaalamin 4. bishaan maddaa kan eeggamu 5. bishaan maddaa kan eegumsa hin qabne 6. bishaan ciisaa 7. bishaan biroo(ibsi)		

112	Gosa mana fincaanii itt fayyadamtan	1. manni fincaanii hin jiru, alumatti gad baana 2. mana fincaanii kan tuubboon qillensa baasu 3. boolla sagaraa tan humaa hin qabne	
113	Mana fincaanii maatii biroo waliin itti fayyadamyuu?	1. Eyyee 0. Lakkii	

Kutaa 2ffaa Beekumsa walii galaa waa'ee qusannaa maatii			
201	Waa'ee Mala qusannaa maatii dhageessanii ni beektuu?	1. Eeyyeen 0. Lakki hin beeku	Yoo lakkii jatte 301
202	Waa'ee mala qusannaa maatii kana eessaa dhageessani?		
	a-Raadiyoonarraa	1. Eeyyeen 0. Lakki	
	b-Televizhiiniirraa	1. Eeyyeen 0. Lakki	
	c-Gaazexaarraa	1. Eeyyeen 0. Lakki	
	d-Poostri fi warraqaa adda adda irra	1. Eeyyeen 0. Lakki	
	e-marii hawasa irra	1. Eeyyeen 0. Lakki	
	f-moobayilo koottin	1. Eeyyeen 0. Lakki	
	g. Hojjetu Extenshini fayyaa	1. Eeyyeen 0. Lakki	
	g-kan biro yoo jiratte ibsi	_____	
203	Tooftaawwan qusannaa maatii armaan gadii keessaa waa'ee isa kami quba qabdu		
	a- Kininii isa liqimfamu	1. Eeyyen 0. Lakki	
	b- Kan bobaa jala awwaalamu	1. Eeyyen 0. Lakki	
	c- Diippoo(kan marfeen kennamu)	1. Eeyyen 0. Lakki	
	d- Kan gadameessaa keessa kaa'amu	1. Eeyyen 0. Lakki	

	e- Kondomii dhirra	1. Eeyyen 0. Lakki	
	f- Kondomi dhala	1. Eeyyen 0. Lakki	
	g- Dubartii kolaashessuu	1. Eeyyen 0. Lakki	
	h- Dhiira kolaashessuu	1. Eeyyen 0. Lakki	
	i-kiinini yerro hatatama	1. Eeyyen 0. Lakki	
	k- Tooftaawwan uumamaa	1. Eeyyen 0. Lakki	
	l- Ispeermi gara alatti basu	1. Eeyyen 0. Lakki	
	j- Harmaa lugsisuudha	1. Eeyyen 0. Lakki	
204	Iddo tajajilaa qusana maatti irra argattan ni beekta?	1. Eeyyen 0. Lakki	
205	Waa'ee mala qusannaa maatii ogeessota fayyaa waliin mariyattee ni beektaa?	1. Eeyyeen 0. Hin beek	
206	Waa'ee tooftaawwan qusannaa maatii abbaa warraakee waliin mariyattee ni beektaa?	1. Eeyyeen 0. Lakki	Yoo lakkii jatte 209
207	Ilaalchi abbaa warraakee waa'ee mala qusannaa maatiirratti qabu maal fakkaata?	1. Ni deggaara 2. Hin deeggaru 3. Hin beeku	
208	Yoo hin deeggaru ta'e, maaliif isinitti fakkaata?	1. Amantaan waan dhorkuuf 2. Ijoollee dabalataa waan barbaaduuf 3. Waa'ee qusannaa maatii waan hin beekneef 4. Sababa isaa hin beeku 5. Kan biraa(himi) _____	
209	Tooftaa qusannaa maatii ammayyaatti fayyadamtanii ni	1. Eeyyeen 0. Lakki	Yoo lakkii

	beektuu?		jatte 301
210	Tooftaawwan isaan kam fayyadamtanii beektu?		
	a- Kininii isa liqimfamu	1. Eeyyen 0. Lakki	
	b- Kan bobaa jala awwaalamu	1. Eeyyen 0. Lakki	
	c- Diippoo (kan marfeen kennamu)	1. Eeyyen 0. Lakki	
	d- Kan gadameessaa keessa kaa'amu	1. Eeyyen 0. Lakki	
	e- Kondomii dhirra	1. Eeyyen 0. Lakki	
	f- Kondomi dhala	1. Eeyyen 0. Lakki	
	g- Dubartii kolaashessuu	1. Eeyyen 0. Lakki	
	h- Dhiira kolaashessuu	1. Eeyyen 0. Lakki	
	I -kiinini yerro hatatama	1. Eeyyen 0. Lakki	
	k- Tooftaawwan uumamaa	1. Eeyyen 0. Lakki	
	l-Ispeermi gara alatti basu	1. Eeyyen 0. Lakki	
Kutaa 3ffaa: Seenaa wal-hormaata waliin wal qabatan			
301	Gaafa jalqaba heerumte umrriinte meeqa turte?	_____	
302	Amma dura ulfoofteeni beekta?	1. Eeyyen 0. Lakki	Yoo lakkii jatte 311
303	Yerro meqa ulfooyte beekta	_____	
304	Mucaa jalqabaa yeroo deessu umuriin kee hangam ture?	wagga_____	
305	Daa'ima meqqa qabdu?	_____	
306	Ijooleewaan sirra du'an niqabdani?	1. Eeyyen 0. Lakki	
307	Yoo kan sirra du'aan qabatan ijoolle meeqa?	_____	

309	Ulfii sirra bahee beekta?	1. Eeyyen 0. Lakki	Yoo lakki jatte 311 darbi
310	Yerroo meqaa?	_____	
311	Ijoollee meeqa qabaachuu feetu?	_____	

312	Ammaan tana ulfadhaa?	1. Eeyyeen 2. Lakki 3. addan baafne	yoo lakki/addan hinbaafne 314 tti darbi
313	ulfaa kana barbadetti moo, xiqqo turu barbademoo , iinuma hin barbanee ture?	1. barbaderra 2. turu barbade 3. hin barbane	
314	yoo ulfaa hin qabne ykn qabachu hin beekne amma ulfaa ittisudhaf ykn tursiisuf waa fayadama jirta?	1. Eeyyen 0. Lakki	
315	Da'ima issa booda yoom deesse?	Ji'a _____ waggaa_____	
316	Yeroo ammaa harma ni hoosiftaa?	1. Eyyee 0. Lakkii	
317	daa'ima boodarra deesse barbadetti moo, hin bardadne moo ykn innuma daa'ima dahu hin barbadne?	1. barbadetti 2. xiqqo turru barbade 3. hin barbadne	
318	Eerga da'ima booda deesse dhiigni/laguun sitti dhufe?	1. Eeyyen 0.Lakki	
319	**kan ulfaa hin qabne/hin beekne** da'ima biro dahuu ni barbada moo hin barbadu?	1. eeyyen nin barbada 2. hin barbadu 3. hin beeyne	2 fi 3 yoo ta'e gara321 tti darbi
320	**kan ulfaa hin qabne/hin beekne** hangam turu barbada osso hin da'in?	1. < wagga lamma 2. > wagga lamma 3. hin murteesine	1 yoo ta'e gara 401
321	Qusannaa maatii fayyadama jirtta?	1. Eeyyeen 0.Lakki	2 yoo ta'e gara 323tti

				darbi
322	Gasa qussannaa maatii kam fayyadamta?	1. Eeyyen	0. Lakki	
	a- Kininii isa liqimfamu			
	b- Kan bobaa jala awwaalamu			
	c- Diippoo(kan marfeen kennamu)			
	d- Kan gadameessaa keessa kaa'amu			
	e- Kondomii dhirra			
	g- Dubartii kolaashessuu			
	h- Dhiira kolaashessuu			
	i-kiinini yerro hatatama			
	j- Harmaa lugsisuudha			
	k- Tooftaawwan uumamaa			
	l- Ispeermi gara alatti basu			
323	"xiqqo turuun barbaade ykn dahuu hin barbadne" jatte, garuu sababni qusanna maatii fayyadama hin jirreef maali?	1. Rakkina fayyaa isaa waliin walqabatee dhufuuf malu sodaachuun 2. Waalqunamtin yerro yerro hin rawwanu 3. bakka tajajila irra argattan hin beeku 4. Abbaan manaa kiyya waan naaf hin eeyyamneef 5. Amantaan waan na dhorkuuf 6. Waa'ee qusannaa maatii waan hin beekneef 7. harmma luysisutti jira 8. Carraan ulfaawuuko xiqqaa waan ta'eef 9. Ulfaa hin goodhane 10. kan bira_____		

Kuta 4ffaa Yaadoo fayyadaminsa qusanna maati waalin walqabatte						
401	yoo karoora maati turban dhufu keessatti fudhachu barbadde yoo taa'e yaada ykn iilalcha kee nuf ibsi.	ciiminan waliif hingalu	waliif hin galu	jidugala	waliif gala	ciiminan waliif gala
a) Waa'e qusana maati gaafachu nin salfadha/qanfadha						
b) Namooni nabeekan achitti yoo na argan nin salfadha/qanfadha						
c) Maatin koo qusana maati akkan barbadu yoo beekan maal akka nanjaa'an na yaachisisa						
d) Gaanda koo keessatti yoo qusana maati akkan fayadamu beekan maal akka naan jaa'an na yaachisisa						
e) Oggeessa fayya waalin waa'e qusana maati maari'achu nin salfadha/qanfadha						

Galtoomaa!!!

9.5. Annex VII : Curriculum Vitae

I. PERSONAL INFORMATION

Name	Saba Hailu Girmay
Date of Birth	May, 1995 GC
sex	Female
Nationality	Ethiopian
Contact address	Mobile number : +251913452855
E-mail	sabahailu06@gmail.com

II. WORK EXPERIENCE

June 2017- September, 2018- Graduate Assistant at Haramaya University collage of health and medical science, Harar

Advising undergraduate students

Supervisor for CBTP (Community Based Training Program), TTP (Team Training Program), and CHP (Community Health Practice)

III. EDUCATION AND TRAINING

Period	Program	Institution	Qualification
2013 – 2017	Public health	Haramaya university collage of health and medical science	Bsc in public health

IV. LANGUAGE CAPABILITY

Language	Listening	Speaking	Reading	Writing
English	Excellent	Excellent	Excellent	Excellent
Afan Oromo	Good	Good	Good	Good
Amharic	Excellent	Excellent	Excellent	Excellent

V. SKILLS

- Computer and statistical software applications

VI. HOBBIES

- Reading and watching movies

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Admas Abera (MPH) lecturer at Haramaya University

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9.6. Annex VIII. Approval sheet

HARAMAYA UNIVERSITY

POST GRADUATE PROGRAMS DIRECTORATE

Prevalence and Associated factors for unmet need for contraception among young married women in Haramaya HDSS, 2020.

Submitted by	Saba Hailu Girmay	_____	_____
	Name of student	Signature	Date

Approved by

1.	Dr. Nega Assefa	_____	_____
	Major Advisor	Signature	Date
2.	Mr. Tariku Dingeta	_____	_____
	Co-advisor	Signature	Date
3.	_____	_____	_____
	Research thematic area leader	Signature	Date
4.	_____	_____	_____
	Chairman DGC/SGC	Signature	Date
5.	_____	_____	_____
	PGPD	Signature	Date