

# Unmet Need for Modern Contraceptive Methods and Associated Factors Among Currently Married Women in Damot Woyde District, SNNPR, Ethiopia, 2019

This article was published in the following Dove Press journal:  
*Open Access Journal of Contraception*

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**Background:** The ability of individuals and couples to anticipate and achieve their desired number of children as well as the spacing and timing of their birth is family planning. Access to family planning and ensuring that needs are met is based on human rights. Nonetheless, for most women, this need has not been met. In addition, in this study field, there was minimal evidence regarding this. Thus, the aim of this study was to assess the prevalence and associated factors of unmet need of modern contraceptive methods among currently married women in Damot Woyde district, southern Ethiopia.

**Methods:** This community based cross-sectional study was conducted from February 20 to 28, 2019. A multi-stage sampling procedure was employed to select 658 currently married women of child-bearing age in the study areas. A pretested interviewer administered questionnaire was used for data collection. Bivariate and multivariate logistic regression analyses were used to identify the predictors of dependent variables and the adjusted odds ratios with its 95% confidence interval was used to report the level of association. Variables with a *P*-value<0.05 were considered as statistically significant.

**Results:** The total unmet need for modern contraceptive methods was 169 (26.3%; 95% CI= 22.9–29.7%) among currently married women for the study participants. In multiple logistic regression analysis, educational status (AOR=4.3; 95% CI=1.1–14.7), women with five or more, and three-to-four children(AOR=4.3; 95% CI=1.4–13.1 and AOR=2.8; 95% CI=1.1–7.8, respectively), little perceived risk of pregnancy due to infrequent sexual intercourse (AOR=2.2; 95% CI=1.3–3.8), and little perceived risk of pregnancy due to breast feeding (AOR=2.3; 95% CI=1.3–4.10) were factors associated with the unmet need of modern contraceptive methods.

**Conclusion and Recommendation:** This study revealed that unmet need for modern contraceptive methods was found to be high compared to the national and regional figures. Therefore, community health workers and health professionals should be strengthening communication and discussion at grass root level in order to promote the right time for using family planning. District health office and other concerned bodies should collaborate with the education office to expand formal and non-formal education for women in order to decrease the unmet need for modern contraceptive methods.

**Keywords:** unmet need, contraceptive, Ethiopia

## Plain Language Summary

Family planning (FP) is the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their birth. The right to family

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planning and reproductive health services has been enshrined in a number of international agreements and strategies; therefore, governments are obligated to ensure these aims are met. Moreover, under Sustainable Development Goals 3 (SDGs), universal access to sexual and reproductive healthcare services, including family planning, were established. In addition, a variety of NGO services have been given in this study area to improve the uptake of family planning. Nevertheless, there has been little evidence of the extent of unmet need for modern contraception. The goal of this study was, therefore, to determine the level of unmet need and its associated factors among married women in the district of Damot Woyde, southern Ethiopia, in 2019.

A systematic random sampling method was conducted to recruit 658 individuals in this study. The association between the dependent and explanatory variable was assessed by using the binary logistic regression model. Accordingly, educational status, total number of living children, little perceived risk of pregnancy due to infrequent sexual intercourse, and little perceived risk of pregnancy due to breast feeding were factors associated with the unmet need of modern contraceptive methods. Therefore, community health workers and health professionals should be strengthening communication and discussion at grass root level in order to promote the right time for using family planning.

## Background

Modern contraceptive methods are products or medical procedures that interfere with reproduction through acts of sexual intercourse. Sterilization (male and female), intrauterine devices and systems, subdermal implants, oral contraceptives, condoms (male and female), injectables, tablets for emergency contraception, patches, diaphragms and cervical caps, spermicidal agents (gels, foams, creams, suppositories, etc.), vaginal rings, and sponges are all forms of modern contraceptives.<sup>1</sup>

Family planning (FP) is the ability of individuals and couples to anticipate and attain their desired number of children and the spacing and timing of their birth.<sup>2</sup> Currently, provision of contraceptives through outreach, which is driven by non-governmental organizations and government as a backup, methods is used as a strategy to improve the sexual and reproductive health of women.<sup>2</sup>

According to ICPD 1994, accessing of family planning is considered as a human right, and governments are obligated to ensure it.<sup>3</sup> Moreover, ensuring universal access of family planning was one of the targets of Sustainable Development Goal 3 (SDGs) to end preventable maternal deaths through the integration of reproductive health into national strategies and programs.<sup>4</sup>

The government of Ethiopia committed and launched reproductive health strategies to ensure the utilization of quality family planning (FP) services through reducing the unmet need for contraception from 25 to 10, and increasing contraceptive prevalence to 55% among married women.<sup>5</sup>

Despite its insight by government, and its embedment and recognition as a human right, globally in 2017, 12% of married or in-union women are estimated to have an unmet need for family planning. Moreover, there were great WHO regional variations in level of unmet need for modern contraceptive methods. The level was higher in Africa (22%) and Oceania (15%) compared to other regions, where the unmet need for family planning is estimated to be at or below 10% for married or in-union women.<sup>6</sup> Similarly, over the last 25 years, in Ethiopia, there was an around 6-fold increase in coverage of demand satisfied for modern contraceptive use (14% in 2000 to 61% in 2016). Despite that, the 2016 EDHS report revealed a high prevalence of unmet need for family planning even if it declined from 37% in 2000 to 22% in 2016.<sup>7</sup>

Moreover, the min-EDHS (2019) reported that, overall, 41% of currently married women are using modern methods of family planning. By region, the CPR ranges from 3% in Somali up to 50% in both the Amhara Region and Addis Ababa.<sup>8</sup> This report indicates a big discrepancy of achieving targets of CPR of 55% by 2020.<sup>5</sup>

However, even if there were a number of supports from non-governmental organizations to increase the uptake of family planning in this study area, and there is a lot of current information on the magnitude of unmet need for modern family planning and factors associated with it in our study area. Therefore, this study was aimed to assess the prevalence and associated factors for unmet need of modern family planning methods among currently married reproductive women.

## Methods

### Study Area and Design

Damot Woyde district is one of the 12 rural districts and three city administrations in the Wolaita Zone. It is located in the east part of Wolaita Zone and is 400 km from Addis Ababa, 171 km from the SNNP regional city of Hawassa, and 27 km from the Soddo (the zonal capital). There are 23 rural and two urban kebeles and it has an estimated population of 113,823 based on estimated projected figures from the Central Statistical Agency of Ethiopia (CSA, 2007). In total, there are four health centers and 27 health posts that provide family

planning in the district. The physical health services coverage of the district was 88% in 2019. A community-based cross-sectional study was done from February 20–28, 2019.

## Definition of Outcome Variables

### Unmet Need of Modern Contraceptive Methods with Currently Married Women

This variable measurement is complex. There were three criteria used to categorize women under unmet need for family planning. If a woman fulfilled one of the criteria for unmet need for family planning mentioned below, she was categorized under unmet need for family planning.

- (i) Those women who are neither pregnant nor amenorrheic, but fecund women, and those who want to space or limit their fertility, but are not using modern contraceptive methods.
- (ii) Those pregnant women whose pregnancy was mistimed or unwanted at the time when they became pregnant.
- (iii) Postpartum amenorrheic women whose last birth was mistimed or unwanted and period not returned since last birth within last 2 years.<sup>9</sup>

### Unmet Need for Spacing

The percentages of not pregnant women who want another child after 2 years and who are pregnant as a result of a mistimed pregnancy but not using any modern contraceptive methods.

### Unmet Need for Limiting

The percentages of not pregnant women who do not want another child at all and who were pregnant as a result of unwanted pregnancy but not using any modern contraceptive methods.

## Measurements of Predictors

### Knowledge of Modern Contraception Methods

This was measured by using six Yes or No questions related to contraception. A woman was knowledgeable if she scored a mean score or above mean, otherwise she was considered as non-knowledgeable.<sup>10</sup>

### Attitude Towards Modern Contraceptive Methods

This was measured by using five Likert scale questions (strongly disagree to strongly agree). A woman was considered to have a positive attitude if she scored at mean or above the mean value, but if she scored below the mean she was categorized to have a negative attitude.

### Defaulter

A woman was categorized under defaulter for family planning if she ever used family planning, but discontinued it during the survey period.

## Population

All selected currently married women of childbearing age (15–49 years old) resided in Damot Woyde district formed the studied population. Those women who were of childbearing age (15–49 years old) that resided permanently for at least 6 months in the study area were included in this study and those women who were critically ill or cannot communicate were excluded from the study.

## Sample Size Determination

The single population proportion formula was used to estimate the sample size of the study. The estimated prevalence of unmet need for modern contraception was obtained from studies done in Misha district, southern Ethiopia, at 26.5%,<sup>11</sup> and by assuming a confidence level of 95% and the desired margin of error of 5%, this gave a total of 299. So, by considering a 10% non-response rate and a design effect of 2, the total sample required was 658.

## Sampling Procedure

A multistage sampling technique was used to select the study subjects. By using simple random sampling methods, one urban and seven rural kebeles were selected. The required sample size was proportionally allocated to each kebele based on the number of households. Finally, a systematic random sampling method with 10th k interval was applied to select the households with women in the reproductive age group.

## Data Collection Methods and Procedures

Data collectors were recruited from other nearby health institutions. Six diploma graduate midwifery nurses as data collectors, and one BSc midwifery and one public health officer who speak Amharic and Wolaitegna very well were recruited for supervision. Data in the form of survey were collected from women by using semi-structured interview administered questionnaires. A pre-tested, structured, interviewer administered questionnaire was used. The questionnaire was adapted from EDHS and other published literatures.<sup>10,11</sup>

## Data Quality Management

One day in-depth training was given to data collectors. Data collection was supervised by supervisors and the principal investigator. A pretest was conducted on 5% of the sample size from out of the study area to take every possible correction. Data were cleaned and checked for completeness on a daily basis.

## Data Analysis

Data were edited, coded, and entered into Epidata version 3.1 and exported to SPSS 23 statistical software for analysis. After cleaning data for inconsistencies and missing value in SPSS, descriptive statistics were done. Bivariate analysis was done to determine the association between each independent variable and outcome variable. All predictor variables with a *P*-value less than 0.25 during the bivariate analysis were entered into the multi-variable logistic regression model. Then multivariable logistic regression model using the backward stepwise selection method at a *P*-value<0.05 and AOR with 95% CI was used to measure the degree of association between independent variables and a dependent variable. During data analysis, no adjusting for sample design or cluster was conducted.

## Ethical Approval and Consent to Participate

Ethical clearance was secured from the ethical clearance committee of the Wolaita Sodo University, College of Health Science and Medicine. The purpose, objectives, and importance of the study were explained and verbal informed consent was secured from each participant and approved by the Ethical board of Wolaita sodo university. They were told that documents will be kept confidential and have the right to refuse participation totally at any time if they were not comfortable. We confirmed that the study was conducted in accordance with the Declaration of Helsinki. Moreover, verbal informed consent was approved by the Ethical Clearance Committee of the Wolaita Sodo University, and that participants under the age of 18 years are legally able to provide such consent due to their marital status.

## Result

Of 658 sampled study subjects, 643 were participated in this study given the response rate of 97.7%.

## The Socio-Demographic Characteristics

The mean age of the study participants was 23.8 (SD=±4.6). The study participants were found to be followers of protestant religion (482; 75%), housewives (449; 69.8%), unable to read and write (213; 33.1%), and Wolaita ethnic (637; 99.1%). The majority of the study participants had an income of <400 ETB, and did not own a radio and TV (350; 54.4%) (Table 1).

## Reproductive Characteristics

One third (33.6%) of the respondents were in the age range of below 18 years when they got married the first time. Among the study participants, 83 (12.9%) were pregnant at the time of interview. Moreover, from the pregnant mothers, 11 (13.3) wanted a later pregnancy, and seven (8.4) did not want to be pregnant at all (Table 2).

## Knowledge and Attitude Towards Modern Contraceptives

The overall level of good knowledge regarding contraception was 489 (76%). Near to all the study respondents (636; 98.9%) mentioned at least one modern family planning method. Regarding the source of information for contraception, more than two thirds (439; 68.3%) was from health extension workers. The majority of the women knew about injectables (621; 96.6%), while only 115 (17.9%) knew about vasectomy. Regarding the attitude towards contraceptive methods, positive attitudes outweighed negative ones (Table 3).

## Family Planning Utilization

Regarding family planning utilization, 292 (45.4%) met the need for family planning, 161 (25%) were defaulters for modern contraceptives, and 190 (29.5%) of the study participants were not using any of the modern contraceptive methods. Of the total current users, 165 (56.5%) used injectable family planning methods. Out of the 351 non-family planning users, 131 (37.3%) were not using modern contraceptive methods for fear of side-effects, 119 (33.9%) due to husband's opposition, 115 (32.8%) because they had no or infrequent sex, and 98 (28.0%) because they were breastfeeding (Table 4).

## The Prevalence of Unmet Need

The total unmet need for modern contraceptive methods was 169 (26.3%; 95% CI=22.9–29.7) among currently married

**Table 1** Socio-Demographic Characteristics of Currently Married Women, Damot Woyde District, SNNPR, Ethiopia, 2019 (N=643)

Characteristics (N=643)		Number	Percent
Age of mother (in years)	15–24	126	4.0
	25–34	135	21.0
	35–49	201	31.3
Religion	Protestant	482	75.0
	Orthodox	144	22.4
	Catholic	16	2.5
	Muslim	1	0.2
Occupation of mothers	Housewife	449	69.8
	Farmer	24	3.7
	Merchant	124	19.3
	Student	26	4.0
	Government employee	19	3.0
	Others*	1	0.2
Educational status of mothers	Unable to write and read	213	33.1
	Able to read and write	41	6.4
	Primary	244	37.9
	Secondary	91	14.2
	Certificate and above	54	8.4
Ethnicity	Wolaita	637	99.1
	Others**	6	0.9
Income	<400	261	40.6
	401–745	192	29.9
	746–1,220	98	15.2
	>1,220	92	14.3
Ownership of Radio or Television	Only radio	234	36.4
	Only TV	16	2.5
	Both radio and TV	11	1.7
	None	350	54.4

Notes: \*Unemployed. \*\*Gurage, Amhara, Sidama.

women for the study participants. The unmet need for spacing is 121 (18.8%) and 48 (7.5%) for limiting.

## Determinants of Unmet Need for Modern Contraceptive Method

Possible explanatory variables were assessed in association with unmet need for modern contraceptives in the bivariate analysis in the study area. Among these factors, age, occupation and educational level, total number of living children, mother attitude and knowledge about one

**Table 2** Reproductive Characteristics Among Currently Married Women, Damot Woyde District, SNNPR, Ethiopia, 2019 (N=643)

Characteristics		Number	Percent
Age at first marriage	Below 18	216	33.6
	18–24	411	63.9
	25–34	16	2.5
Total living children	No children	57	8.9
	1–2	195	30.3
	3–4	171	26.6
	5 and above	220	34.2
Currently pregnant	Yes	83	12.9
	No	546	84.9
	Unsure	14	2.2
Whether the current pregnancy was wanted (n=83)	Wanted now	65	78.3
	Wanted later	11	13.3
	Not wanted at all	7	8.4
Wanted last birth (for postpartum amenorrheic women) (n=75)	Wanted	38	50.6
	Wanted later	32	42.7
	Not wanted at all	5	6.7

FP, do not knew alternative choice of FP, visiting health facilities in the last 6 months, discussion with the partner, and little perceived risk of pregnancy due to infrequent sexual intercourse and little perceived risk of pregnancy due to breast feeding, and the outlook that FP improves mother and child health were identified as candidates for multivariable logistic analysis.

In multivariable logistic regression analysis, educational status, total number of living children, little perceived risk of pregnancy due to infrequent sexual intercourse and little perceived risk of pregnancy due to breast feeding were independently associated factors of unmet need for FP (Table 5).

The odds of unmet need for modern contraceptive was 4.7-times higher among women unable to read and write compared to those who were educated to the secondary and above level (AOR=4.3; 95% CI=1.1–14.7). Women with five or more, and three-to-four children were associated with unmet need for modern contraceptive methods, compared to those with no children (AOR=4.3; 95% CI=1.4–13.1; and AOR=2.8; 95% CI=1.1–7.8, respectively). Those study participants with little perceived risk of pregnancy due to infrequent sexual intercourse were 2.2-times more likely experienced unmet need for modern contraceptive methods

**Table 3** Knowledge and Attitude Towards Modern Contraceptive Methods Among Currently Married Women, Damot Woyde District, SNNPR, Ethiopia, 2019 (n=643)

Characteristics		Number	Percent
Know about at least one modern contraceptive	Yes	636	98.9
	No	7	1.1
Source of information for contraceptive	Health extension worker	439	68.3
	Health development army	375	58.3
	My friends	326	50.7
	Television	111	17.3
	Radio	169	26.3
	Newspaper	84	13.1
	Different meeting	290	45.1
	Other sources	20	3.1
	Knowledge of contraceptive methods	Oral pills	611
IUCD		382	59.4
Injectables		621	96.6
Implant		564	87.7
Condom		365	56.8
Tubal ligation Vasectomy		229 115	35.6 17.9
Visited by and counseled on FP by health extension worker at home in the last 6 months	Yes	397	61.7
	No	246	38.3
Visited health facility in the last 6 months	Yes	354	55.0
	No	289	45.0
In the last 6 months HF visit, health worker counseled for FP (n=354)	Yes	296	83.6
	No	58	16.4
Do not know how to use alternative choice FP	Yes	75	11.7
	No	568	88.3
Mothers attitude towards modern contraceptive methods	Positive attitude	458	71.2
	Negative attitude	185	28.8

when compared to their counterparts (AOR=2.2; 95% CI=1.3–3.8), and similarly study participants who had little perceived risk of pregnancy due to breast feeding were 2.3-times more likely to have experienced an unmet need for modern contraceptive use when compared to their counterparts (AOR=2.3; 95% CI=1.3–4.1) (Table 5).

**Table 4** Utilization of FP Among Currently Married Women, Damot Woyde District, SNNPR, Ethiopia, 2019 (N=643)

Characteristics		Number	Percent
Current utilization status of family planning	Currently user	292	45.4
	Defaulter	161	25.0
	Never user	190	29.5
Reason of not using modern contraceptive (n=351)	Fear of side-effects	131	37.3
	Husband's opposition	119	33.9
	Little perceived risk of pregnancy due to infrequent sexual intercourse	115	32.8
	Little perceived risk of pregnancy due to BF	98	28.0
	Lack of knowledge	67	19.1
	Want to be pregnant	46	13.1
	Poor availability	31	8.8
	Poor access	23	6.6
	Family opposition	11	3.1
	Religion prohibition	7	2.0
	FP method failure	4	1.1
Cannot get pregnant due to hysterectomy/ menopause	0	0	

## Discussion

The study revealed that there was a high (26.3%) total unmet need for modern contraceptive methods (18.8% for spacing and 7.5% for limiting). It also showed that educational status, total number of living children, little risk of pregnancy due to infrequent sex, and little risk of pregnancy due to breast feeding were independently associated factors of unmet need among currently married women in the study area.

This finding was in line with the study conducted in Enemay district (25.6%) of North West Ethiopia, and Misha district (26.5%) in SNNPR.<sup>11,12</sup>

However, the level was lower than the study done in Debre Berhan Town, Amhara, Ethiopia (30.9%).<sup>13</sup> This might be due to the high prevalence of early marriage in Amhara region.<sup>7</sup> And much lower than in studies done in Kassala Eastern Sudan (44.8%), rural areas of Burkinafaso (40.7%), in Gulmi district in Nepal (48%), as well as a study done in Eastern Democratic Republic of Congo (56%).<sup>13–17</sup> This might be due to variation in integration of family planning to other service area. This finding is higher than national and regional total unmet need (22%, 21%, respectively), and higher than studies conducted in Dangila (17.4%) Awi zone, Amhara region and Cameroon

**Table 5** Bivariate and Multivariate Logistic Regression Analysis of Factors Associated with Unmet Need of FP in Damot Woyde District, SNNPR, Ethiopia, 2019

Respondents Characteristics	Category	Unmet Need		P-value	COR (95% CI)	AOR (95% CI)
		No	Yes			
Age (years)	15–24	126 (78.3)	35 (21.7)	0.405 0.016*	1	1
	25–34	256 (74.9)	86 (25.1)		1.2(0.7,1.9)	1.05(0.5,2.07)
	35–49	92 (65.7)	48 (34.3)		1.8 (1.1–3.1)	1.24 (0.4–,3.2)
Education	Unable to read and write	133 (62.4)	80 (37.6)	<0.001***	4.0 (1.7–9.4)	4.3 (1.3–14.7)
	Able to read and write	31 (75.6)	10 (24.4)	0.156	2.1 (0.74–6.3)	1.6 (0.4–7.0)
	Primary	191 (78.3)	53 (21.7)	0.152	1.8 (0.8–4.3)	1.4 (0.4–4.8)
	Secondary Certificate and above	72 (79.1) 47 (87)	19 (20.9) 7 (13)	0.234	1.7 (0.7–4.5) 1	1.6 (0.5–5.6) 1
Occupation	Housewife/ unemployed	314 (71.9)	123 (28.1)	0.119	1.4 (0.9–2.0)	0.8 (0.5–1.5)
	Employed	160 (77.7)	46 (22.3)		1	1
Income (ETB)	Below 400	173 (66.3)	88 (33.7)	0.000***	3.4 (1.7–6.5)	2.2 (0.8–5.7)
	401–745	141 (73.4)	51 (26.6)	0.012*	2.4 (1.2–4.8)	1.3 (0.5–3.2)
	746–1,220	80 (81.6)	18 (18.4)	0.317	1.5 (0.7–3.3)	0.6 (0.2–1.7)
	Above 1,220	80 (87)	12 (13)	1	1	
Total number of alive children	No child	46 (80.7)	11 (19.3)	0.777 0.253 0.059	1	1
	1–2	154 (79)	41 (21)		1.1 (0.5–2.3)	2.0 (0.9–3.4)
	3–4	125 (73.1)	46 (26.9)		1.5 (0.7–3.2)	2.8 (1.1–7.8)
	5 and above	149 (67.7)	71 (32.3)		2.0 (0.9–4.1)	4.5 (1.6–13.1)
Exposure to media (radio or TV)	No	245 (70)	105 (30)	0.02*	1.5 (1.1–2.2)	0.7 (0.4–1.3)
	Yes	229 (78.2)	64 (21.8)		1	1
Age at first marriage	Below 18	143 (68.1)	67 (31.9)	0.046*	3.0 (1.0–9.1)	1.7 (0.4–7.0)
	18–24	305 (75.7)	98 (24.3)	0.180	2.1 (0.7–6.1)	0.9 (0.2–3.7)
	25–34	26 (86.6)	4 (13.4)	1	1	
Do not know about alternative choice of FP	No	432 (76.1)	136 (23.9)	<0.001***	1	1
Yes	42 (56)	33 (44)	2.5 (1.5–4.1)		1.2 (0.5–2.8)	
Discussion with sexual partner on F/P	No	91 (64.1)	51 (35.9)	0.003**	1.8 (1.2–2.7)	1.2 (0.5–3.3)
Yes	383 (76.4)	118 (23.6)	1		1	
Visiting health facilities in the last 6 months	No	96 (69.1)	43 (30.9)	0.160	1.3 (0.9–2.0)	0.6 (0.4–1.2)
Yes	378 (75)	126 (25)	1		1	
Little perceived risk of pregnancy due to infrequent sexual intercourse	No	135 (57.2)	101 (42.8)	0.004**	1	1
Yes	47 (40.9)	68 (59.1)	1.9 (1.2–3.0)		2.2 (1.3–3.8)	
Little perceived risk of pregnancy due to breast feeding	No	146 (57.7)	107 (42.3)	<0.001***	1	1
Yes	36 (36.7)	62 (63.3)	2.3 (1.4–3.8)		2.3 (1.3–4.1)	
Knowledge on family planning	Poor	100 (64.9)	32 (35.1)	0.005**	1.7 (1.2–2.6)	1.2 (0.6–2.0)
	Good	374 (76.5)	115 (23.5)		1	1
Attitude towards family planning utilization	Negative	123 (66.5)	62 (33.5)	0.008**	1.6 (1.1–2.4)	0.6 (0.2–1.7)
Positive	351 (76.6)	107 (23.4)	1		1	

Notes: \* $P < 0.05$ , \*\* $P < 0.01$ , \*\*\* $P < 0.001$ .

(20.4%).<sup>7,18,19</sup> This might be due to the socio demographic variability, availability of logistics, and variation in implementation of compassion and respectful care provision regarding family planning methods.

The likelihood of an unmet need for contraception for women who were unable to read or write was higher when compared to those women who are educated to secondary level and above. This is in line with studies done in Misha District, SNNPR and Enemay District, Northwest Ethiopia,<sup>11,12</sup> and Eastern Sudan.<sup>14</sup> A possible reason is that women who are educated are more likely to gain knowledge about contraceptives by reading different reading materials and have increased access to contraceptive information from different media. This finding implies the need of expanding basic education at the community level in order to decrease the level of unmet need through empowering women through education.

This study also indicated that the total number of living children are one of the predictors for unmet need of modern contraceptive methods. Thus, women with one or more children have the demand for contraceptives, however due to different reasons they would be exposed to unmet need of family planning. In this study, among the study participants who had demanded contraceptives, only 45.4% reported their met demand. This is supported by studies carried out elsewhere.<sup>11,16,20,21</sup> This might be due to the fact that women with adequate children need to control their fertility, leading to a high demand for contraceptives.

Little perceived risk of pregnancy due to infrequent sexual intercourse was another factor that mislead the women to the unmet need of family planning. This was the same with the studies conducted in rural areas of Burkina Faso.<sup>15</sup> This might be due to a lack of fertility awareness. This finding implies that the chance of having of unwanted pregnancy for those women might be high. Therefore, the government should strengthen its health education programs on how pregnancy can occur, safe sex, and the need of contraceptive method utilization to prevent it.

Perception of women with little perceived risk of pregnancy due to breast feeding that increases the probability to be an unmet need of family planning. This was similar with studies done in Northern Ethiopia and rural areas of Burkina Faso.<sup>18,22</sup> This might be due to a lack of awareness on the right time for lactation amenorrhea. This finding implies that the need of health workers support to

community on the timing of exclusive feeding and its frequency to reduce unwanted pregnancy.

## Limitation of the Study

First, the information used in this study was based on self-report. There may be some bias in the reporting, particularly around some of the sensitive issues that were incorporated. Therefore, to address these issues confidentiality was strictly maintained for study participants and the data collectors were oriented on collection of data. Moreover, the unmet need for modern contraceptive utilization was negative measurement in family planning measurements; it's better to study demand satisfied for modern contraceptive methods rather than unmet need. Demand satisfied for modern contraceptive method is one of SDG sub-goals under SDG3.

## Conclusion

The prevalence of unmet need for modern contraceptive methods among currently married women is high and women have more unmet needs for spacing compared to unmet needs for limiting. The concerned bodies should expand basic education at the community level; strengthen health education programs which focused on fertility awareness, and the right time for lactation amenorrhea.

## Abbreviations

EDHS, Ethiopian Demographic and Health Survey; F/P, family planning; MMR, maternal mortality rate; SDG, sustainable development goals.

## Data Sharing Statement

All data will be available on reasonable request.

## Consent for Publication

It is not applicable.

## Ethics Approval and Consent to Participate

Ethical clearance was obtained from the Institutional Ethical Review Board (IERB) of Wolaita Sodo University, College of Health Sciences. An official letter of permission was written to Wolaita Sodo Health Bureau to the respective Damot Woyde district. Informed oral consent was obtained from study participants after explaining the objective of the study, and the benefit and risks of participating in this study.

## Acknowledgments

We are very grateful to Wolayta Sodo University for provision of ethical clearance for the conduct of this study, Wolayta Zonal health department for the logistic support to this study, and all study participants for their commitment in responding to our questionnaire.

## Author Contributions

All authors made a significant contribution to the work reported, whether that is in the conception, study design, execution, acquisition of data, analysis and interpretation, or in all these areas; took part in drafting, revising, or critically reviewing the article; gave final approval of the version to be published; have agreed on the journal to which the article has been submitted; and agree to be accountable for all aspects of the work.

## Funding

No funding was obtained.

## Disclosure

The authors declare that they have no competing interests.

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