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1	Assessment of the Magnitude and Detrminants of Unmet need
2	for Family Planning among Married Women in Finoteselam
3	Dstrict, North West Ethiopia
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⁸ Abstract

⁹ Background: Ethiopia is one of the most populous countries in Africa. Among currently

¹⁰ married women, 22

11

12 Index terms— unmet need, family planning, married women, finoteselam district.

13 1 Introduction

nmet need, which is estimated from survey data, refers to married women who say that they would prefer to avoid 14 15 or postpone childbearing, but who are not using any method of contraception [1]. The concept of unmet need for family planning was first explored in the 1960s, when data from surveys of contraceptive knowledge, attitude and 16 practice ??KAP] showed a gap between some women's reproductive intentions and their contraceptive behavior 17 (1). Unplanned pregnancy poses a major public health challenge to women of reproductive age worldwide, 18 especially in developing countries. World-wide, 64% of married women use contraception but an estimated 225 19 million women in developing countries would like to delay or stop childbearing, but are not using any method 20 of contraception. Globally, the prevalence of contraceptive use has been increasing, but the unmet need for 21 contraception still remains a problem (1). It has been estimated that about 80 million (38%) of the 210 million 22 23 pregnancies that occur annually worldwide, are unplanned, and about 46 million (22%) end up in abortion (2). 24 Ethiopia is one of the most populous countries in Africa. It stands third after Nigeria and Egypt. With the highest annual population growth rate of 2.9 %, high maternal mortality of 412/100,000 live births and high 25 infant mortality of 97/1000 live births (3). Among currently married young women, 22% had unmet need for 26 27 family planning. Due to this, unwanted pregnancies and abortion is wide spread and generally performed by untrained persons. It is the leading causes of maternal mortality. In a community based study abortion accounted 28 for 54.2% of the direct causes of maternal deaths (3). In recognition of the need to address these issues, the 29 Government of Ethiopia adopted a population policy in 1993. The prime objective of the policy is to harmonize 30 the rate of population growth with the socioeconomic development. The population policy also aims at reducing 31 the total fertility rate from 7.7 children per women in 1995 to 4 Children per women in 2015 and an increase in 32 contraceptive prevalence rate from 15% in 2005 to 44% in 2015 [3]. The International Conference on Population 33 34 and Development ??ICPD] held in Cairo in 1994 secured international agreement on population and development 35 approach that put people first and places women at the centre of development efforts.

These were already guiding principles of the national population policy adopted in Ethiopia, as part and the centre of the new economic and social policies adopted by the Transitional Government of Ethiopia [4]. Control over one's fertility is a basic need for family planning, which is as basic as food and housing. The Amhara National Regional State of Ethiopia is characterized by high infant mortality of 94/1000 live birth, a high level of fertility rate of 5.1 children per women of reproductive age and low level of contraceptive use, that is 9.1% [3].Therefore, this study is aimed at assessing the magnitude and factors associated with unmet need for family planning among married women in the study area.

43 **2** II.

44 **3** Materials and Methods

A Stratified random sampling procedure was employed in the catchment area. Using the household unit lists, the
number of households unit was identified. By applying simple random sampling procedure, the house number of
each unit was selected. If there was no any eligible in the house, to choose one of the neighbor houses, lottery
method was used to take one of them instead of it.

49 **4** III.

50 5 Study Area and Population

51 Finoteselam district has a total population of 48,955. Among this in rural, males, 9115, and females, 8699, where 52 as in urban, males, 14,294 and females 16,847. The source population of the study is total married women of

child bring age (15-49 years old) groups that found in the district. The study population is Proportion of married

women of child bearing age (15-49 years old) groups with inclusion criteria from the source population.

55 6 IV.

⁵⁶ 7 Data Collection and Procedure

A community based quantitative cross sectional study was conducted to assess the magnitude and factors associated with unmet need for family planning among married women in FinoteSelam district, from April, 2016 to May, 2016. A Stratified random sampling procedure was employed in the catchment area, using the household unit lists, the number of households in each unit was identified. By applying simple random sampling procedure, the house number of each unit was selected. If there was no any eligible in the house, to choose one of the neighbor houses, lottery method was used to take one of them instead of it.

63 V.

64 8 Statistical Methods

The sample size was calculated using EPI info statistical soft ware version 7.2.1 for determination of sample size& analysis was performed by SPSS version 20.0 statistical software package. Frequency and percentage were calculated for the study variables. P-value and two tail Fisher's exact test was used to calculate and determine significance. In all statistical tests, the differences were considered to be statistically significant if p-value less than 0.05. By taking single population proportion using the following estimates: Prevalence rate of unmet need for family planning of the country is 34.4% (3). On-non response rate 10% and confidence level of 95 % (1.96). Based on this, giving a total sample size of 369.

72 9 Availability of data and materials:

73 The data can be shared at any stage in time.

74 10 VI.

75 11 Ethical Consideration

Ethical clearance was secured from the Ethical Clearance Committee of the school of public Health of Gondar University. The concerned officials at all levels, community leaders, and government bodies were informed, to get the assurance of the study. The purpose, objectives, and importance of the study were explained and informed. Consent was secured from each participant. Confidentiality was maintained at all levels of the study. Participation in the study was on a voluntary basis. Participants who were un willing to participate in the study and those who wish to quit from the study at any point in time were informed to do so without any restriction.

⁸² 12 VII.

13 Consent for Publication

⁸⁴ This manuscript does not contain any identifiable individual person's data; therefore the consent is not applicable.

⁸⁵ 14 VIII.

86 15 Result

⁸⁷ Unmet need to space &limit births among married women and not using contraception in the study area was 68

[18.9%] & 39 [10.8%] respectively. Unmet need to space & limit births among currently pregnant and post-partum
 amenorrhoeic women was 10 [2.8%] and 0% respectively.

Total unmet need in the district was 107 (29.7%) of which 68 (18.9%) was for spacing and 39 (10.8%) for limiting [??ig 1]. Moreover, in the study area 30% of women with unmet need among never-users had intention to use contraception in the near future.

93 **16 IX.**

94 17 Discussion

There are different factors attributed to prohibit using of FP in the study area, which implies the desire to have 95 more children due to religious and husband opposition. There are also some people who think children are an asset 96 and it is up to God to determine the number of children. Other studies also support this finding [2]. Moreover, 97 there is a gap between knowledge and contraceptive practice. In the study area 20.8% use contraceptives for 98 spacing, while 7.5% use for limiting the birth. This shows the majority of the women used the contraception 99 for spacing, while the minority of the respondents used the contraception for limiting the birth. This can be 100 explained by women in the study area have the desired number of children lately than earlier. This finding is in 101 102 line with other studies conducted in other parts of the country & a Rural Area of Kanchipuram District, Tamil 103 Nadu, South India [3,8].

Among respondents who discontinued use of contraception were 16.7% mentioned desire to have more children, 104 105 15.3%, preference method was not available & 39.8%, health concern and side effects. This again indicates that 106 there is inadequate information, education, communication and counseling services that would help the client to continue use of contraception. The finding is also in line with study findings Unmet Needs for Family Planning 107 among Women of Reproductive Age in Nigeria [2]. An effort was made to identify those women who wanted 108 to space or limit their fertility without using any form of contraception during the survey. This is important 109 because, it helps to estimate the contraceptive demand in the future and to select target groups for family 110 planning program intervention. In the study area the level of unmet need for family planning was 29.7% among 111 currently married, pregnant and post-partum amenorrhoeic women. The finding is more than from what the 112 national level was found, that was 22 %, of which 13% was for spacing and 9% for limiting, [3]. The findings of 113 this study indicates that more married women have unmet need than using contraception. Which are in line 114 with the DHS result for Ethiopia [3] and Northern West of Tigray, Ethiopia [5]. In this study 18.9% & 10.8% of 115 unmet need in the study area was for spacing & limiting birth of FP respectively. This shows that the greater 116 percentage of unmet need in the study area women was for spacing than limiting birth, which are in line with 117 the DHS result for Ethiopia, a Rural Area of Kanchipuram District, Tamil Nadu, South India and in Urban 118 Cameroon [3,6,8]. Moreover, Unmet need for family planning in rural was 18% of which 11.3% for spacing and 119 6.7% for limiting of child birth, where as unmet need in Urban was 11.7% of which 8.9% for spacing and 2.8% for 120 121 limiting birth. Total unmet need for family planning was greater for those rural than urban [18 % vs. 11.7 %]. 122 This was true especially for rural women with unmet need for family planning for the purpose of spacing, that 123 is 11.3% compared to 8.9% of the spacers from the urban area. This is in line with DHS result for Ethiopia [3]. Examining unmet need for family planning across various demographic, social and economic variables suggests 124 125 that unmet need for family planning is affected by some of these factors. Unmet need is specifically high among the women in the 25-29 age group [32.7%].Smaller percentages need of family planning were found in the age 126 group of 15-19 [4.7%] and the oldest age group 40-49 [14%]. In the case of young women, the reason might be 127 that, they have not yet achieved their desired number of children, while the older women might have considered 128 themselves as no more at risk of conception, due to, perceived or actual sub fecund and menopausal state. 129 Examining the age distribution of unmet need from the spacer and limiter perspective, there exists a difference 130 in the age pattern. As expected, family planning unmet need for limiting increases with age toward the later age 131 132 group. Among the limiters 22.4 % from the study areas were in the age group 35-49, whereas among younger women ??15] ??16] ??17] ??18] ??19]. And there is no limiter wanted to limit childbirth. Among the study 133 population in the 35-49 ages group 11.2% had unmet need for spacing. Were as among respondents of women 134 in the 15-34 age groups 52.3% had unmet need for limiting birth of FP. As expected, only a small proportion 135 of spacers were found in the last childbearing age group. Age is an important factor when total unmet need is 136 decomposed into need for spacing and need for limiting. Otherwise its importance becomes negligible. Hence 137 age is not an important determinant of overall unmet need for family planning. On the other hands unmet 138 need FP for spacing concentrated around the relatively younger age groups and declines towards the oldest age 139 groups. Women with large numbers of surviving children have a greater unmet need for family planning than 140 those women with fewer children. Women with five or more living children are 3 times more likely unmet need 141 for FP than women with to have fewer children. In general 21.5% women in the study area with five or more 142 living children were spacers, while 25% with similar numbers of living children were limiters. Thus, unmet need 143 144 for family planning, especially for limiting births predominates among women with 5 or more surviving children. 145 There might be several reasons for the greater family planning need of women from the study area. Total unmet need as well as unmet need for limiting and spacing is greater among illiterate women in the study area. Illiterate 146 Women were 6.5 times more likely than women with high school & above to have unmet need. Thus, it is clear 147 that unmet need is highest among women with illiterate or low level of education. Unmet need declines as the 148 education level of women improved. This is possibly due to the reason that the level of awareness of fertility 149 control and preference for a smaller number of families are less understood among the less educated, while the 150

better educated women appreciate the value of small planned family as well as the means in achieving it. Nine 151 percent of women with unmet need in the study area of women thought that their husbands approve of family 152 planning compared with 84% of women whose husbands do not approve using contraception. Women whose 153 husbands do not approve using contraception are 2.7 times more likely to have unmet need than women whose 154 husbands do approve use of family planning. Women who wanted either to space or limit their birth but were 155 not using family planning methods were further asked to state the reasons for not using contraception. The main 156 reasons of non-use mentioned by women with unmet need in their order of importance were husbands/partners 157 opposition to using family planning [25.2%], religion prohibition (22.4%), desire to have more children (18.7%), 158 fear of side effect and health problems [12.1%], lack of information [11 comparable with finding in developing 159 counties [5,7]). There were statistically significant associations between reasons for non-users of contraception 160 like, husband opposition, religion prohibition, and lack of awareness & relative' sopposition. These results agree 161 with the result of bivariate analysis. Moreover, religion prohibition was 2 times more likely to be reasons for 162 non-use of contraceptives compared to those women with desire to have more children, (OR=2.035, 95 CI, 1.005, 163 3.266). Further investigation of women's intention to use family planning methods in the future showed that, 164 thirty percent of women with unmet need for family planning had intention to use contraceptives in the near 165 future. 166

167 X.

¹⁶⁸ 18 Limitation of the Study

Cross-sectional study design was used in the present study. This type of study design shows the exposure and outcome at the same point in time, so that; we cannot formulate a cause and effect relationship. Other possible limitations are: Reliability of answers and sensitivity of the subject.

172 **19 XI.**

173 20 Conclusions

Husband opposition to use contraception, religion prohibition, desire to have more children, lack of knowledge, 174 relative opposed, risk of pregnancy, health problem and fear of side effects were reasons to have unmet need for 175 family planning among women who have never used contraception. Husband opposition & religion prohibition 176 were main reasons to have unmet need for family planning. If factors that causes to have unmet needs for family 177 planning to be avoided, women with unmet need, who have never used contraception, have intention to use 178 family planning in the near future. Moreover, Knowledge about contraception, family size, place of residence, 179 and husband's attitude towards contraception were found to be determinants of unmet need for contraception. 180 181 Competing interest: The authors declare that they have no competing interests.

Authors' contribution: Simenehworku: designs the study, collected and analyzed the data, critically revised & wrote the manuscript.

	percent of women's: husband among lim-
	iters approve
	use of contraception in the study area. Illit-
	erate women
	in the study area were 6.5 times more likely
	than women
]. 4.7% for spacing and	with high school & above to have unmet need for
9.3% for limiting had unmet need in	contraception [OR=6.513, 95% CI: 1.081,
age group of 40-49	7.052].
respectively. Women with current	Among women with unmet need for F Pin
living children of 5 &	rural was
above were 3.3 times more likely to	38.3% for spacing and $22.4%$ for limiting of
have unmet need for	child birth,
FP than women with current children	where as unmet need for FP in urban was
of 1-2 [OR=3.266,	29.9% for
95% CI: 1.858, 5.741]. In the study	spacing and 9.3% for limiting birth. Rural
area women whose	women were
husbands do not approve using con-	2.3 times more likely to have unmet need for
traception are 2.7	family
times more likely to have unmet need	planning than urban women [OR=2.272,
for contraception	95% CI: 1.170,
than women whose husbands approve	3.437]. [Table 1]
use of	
contraception $[OR=2.731, 95\% CI:$	
1.243, 6.471]. Two	

1

Figure 1: Table 1

And 18.7% of women did not use contraception, due	 respectively [Table 2]. Reasons for non-use of contraception, religion prohibition, husband opposition, lack of knowledge about advantage of contraceptive method and relatives opposition, were by 2, 1.7, 1.53 & 1.5 times more likely to be reasons for non-use of contraceptives compared to those women with desire to
to, the desire to have more children. While, the rest of 2.8%, 11.2%, and 1.9% of the respondents were due to relative opposition, lack of knowl- edge and risk of pregnancy	 have more children (OR (95% CI) =2.035 (1.005, 3.266), 1.714 (1.336, 1.976), 1.532 (1.204, 1.950) & 1.505 (1.385, 1.663) respectively [Table 2].

Figure 2: Table 1 :

 $\mathbf{2}$

Reasons	Never users n=107 No $\%$		p-value OR (95% CI) Crude		Adjusted OR
Husband Opposition	37	34.6	.000	1.714(1.336,	1.052(1.006, 1.454)
				1.976)	
Lack of Knowledge	12	11.2	.001	1.532(1.204,	1.102(1.011, 1.908)
				1.950)	
Relatives Opposed	3	2.8	.024	1.505(1.385,	1.050(1.004, 1.604)
				1.663)	
Religion Prohibition	24	22.4	.018	2.035(1.005,	2.713(1.007, 3.707)
				3.266)	
Desire to have More	20	18.7		1.00	1.00
children					

Figure 3: Table 2 :

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Figure 4: K

1

184 .1 Acknowledgment

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