Original Article

Factors Influencing Unmet Need for Family Planning among Women in Fertility Age (15-49 Years Old) in West Mamprusi District in the Northern Region of Ghana

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Abstract

Background: Global realization of the role of family planning (FP) in the attainment of the Sustainable Development Goals (SDGs) is evidenced in the UN 2015 SDG three (3) (target 7) and five (5), which specifically tackles health and women and girl child empowerment respectively. The UN in SDG 3 aims at ensuring healthy lives and promoting wellbeing at all ages by specifically targeting the reduction of maternal mortality to 70 per 100,000 live births by the year 2030 by ensuring universal access to sexual and reproductive health services including family planning. SDG 5 is aimed at achieving gender equality and empowerment for all women and girls with its sixth target being to ensure universal access to sexual and reproductive health and reproductive rights as agreed universally.

Methods: A community based cross sectional study design was adopted to explore the level of unmet need and its determinants as well as total demand for FP and demand satisfied. Mixed study type was used and multistage sampling techniques were adopted to select 415 and 4 participants for the quantitative and qualitative parts of the study respectively. Semi-structured questionnaire and key informant interview guide were used for data collection and SPSS version 22 used for univariate and bivariate analysis while content analysis was done for qualitative data. A p-value less than 0.05 was considered statistically significant.

Results: Total unmet need for family planning was 70.8%, spacing was 61.2% and limiting 9.6%. Total demand for FP was 88.8% and demand satisfied was 18.1% with an FP method discontinuation rate of 17.3%. Among the socio-demographic characteristics considered for the study, the significant ones were number of children (P = 0.008) and household size (0.04). Respondents with the highest unmet need for FP were within the 15-19 (23.5%) and 20-24 (24.5%) age groups. In addition, 38.1% of those with no education and 70% of those married had unmet need for FP. Almost all respondents (98.6%) had heard of FP, 70.4% had moderate knowledge, 16.9% had high knowledge and 12.8% had low knowledge. About 70.1% of those with moderate knowledge had unmet need for FP, 17.7% of those with high knowledge had unmet need and 12.2% of those with low knowledge had unmet need for FP. Majority of those with unmet need had their information from a Radio/TV station (38.6%) followed by those who had their information from health workers (28.3%).

Conclusion and Recommendation: Participants in the age group 15-29 years, and the uneducated, experienced the highest level of unmet need. In addition, even though majority of respondents had moderate knowledge, the knowledge did not translate into a reduced level of unmet need for family planning.

Keywords: Unmet need, Family Planning, Fertility Age, knowledge, Family planning.

Introduction

The Ghana Demographic and Health Survey (GDHS) defined unmet need for family planning as women with the desire to postpone the next birth for two or more years or who want to stop childbearing altogether but are not using any contraceptive method (GDHS, 2014). This is especially significant now than ever before as the world champions the Sustainable Development Goals (SDGs). Realizing the role of family planning (FP) in the attainment of the SDGs, the United Nations (UN) in 2015 dedicated SDG 3 (target 7) and SDG 5 specifically to tackle health and women and girl child empowerment respectively (UN, 2015 cf IPPF, 2016). The SDG 3 aims at ensuring healthy lives and promoting wellbeing at all ages by specifically targeting the reduction of maternal mortality to 70 per 100,000 live births by the year 2030. This is to be achieved by ensuring universal access to sexual and reproductive health services including family planning (UN, 2015).

The commitment to the attainment of the SDGs is high perhaps due to the projected increase in the rate of population growth especially in developing countries as the UN projects many of these countries' population to double by 2050 (UN, 2015). This growth could have implications on the GDP of these countries as Marie Stopes International (MSI) projects that a 5% increase in access to contraception can boost the GDP of Sub-Saharan African countries by 35% there by expanding their economies and creating greater opportunities for all their citizens. There are however growing concerns over the declining funding for FP services over the years and hence the need to re-ignite funding by international donors and partners (WHO, 2006).

In less developed countries, teenage and unplanned pregnancies have led to 18 million unsafe abortions that have in many cases contributed to the high rates of maternal morbidity and mortality in these countries (Ashford, 2003). This is of public health significance because most of these unplanned pregnancies were because of unsafe sex. Unsafe sex also accounts for the high rates of

sexually transmitted infections (STIs) and school drops outs that go a long way to deepen ignorance and perpetuate unemployment and poverty.

Literature Review

The United Nations projects the current global population to increase from 7.3 billion as at mid-2015 to about 8.5 billion in 2030 and increase further to about 9.7 billion in 2050 and 11.2 billion by 20100. With Africa accounting for a population growth of 2.55 from the years 2010 to 2015, more than half of the global population between the years 2015 and 2030 is expected to come from Africa alone. Hence, of the 2.4 billion of human population that is projected to be added to the world's population by 2050, about 1.3 billion will be added in Africa (UN, 2015). This worrying trend of population growth may pose a great deal of challenge not only for Africa and other developing countries, but also to the world in general. This is likely to widen the gap of unmet need, as there may not be a corresponding increase in efforts towards controlling this growth.

For instance, while there is a global unmet need of about 11.9% in 2016 which is a reduction from the 2010 figure of 12.0%, Asia and the Pacific Ocean experienced a reduction from 10.3% to 9.9% over the same period. However, West and Central Africa increased the unmet need gap from 23.8% to 24.2% within the same period (UNFPA, 2016). The study revealed that whiles there was a 0.4% reduction in the world's unmet need, Asia and the Pacific had a 0.8% reduction and West and Central Africa experienced a -0.1% reduction. This is a clear disparity between what is happening in the developed world and the developing world. little gains are however being made in West and Central Africa as total demand for family planning satisfied among women within the age group 15-49 who are married or in union, increased by 1.0% compared with 0.1% and 0.2% in the world and Asia respectively (UNFPA, 2016). These gains must however be sustained through innovative and creative initiatives and interventions.

A trend analysis in contraceptive need and use in developing countries in 2003, 2008 and 2012 by Guttmacher institute showed that, the number of

women needing contraception to avoid pregnancy increased from 716 million (54%) of 1321 million in 2003 to 827 million (57%) of 1448 million in 2008 to 867 million (57%) of 1520 million in 2012. The study indicated that these increases were due to population growth. Modern CPR was high resulting in a decrease of unmet need from 29% in 2003 to 26% in 2008 (Guttmacher institute, 2013). The institute however revealed that unmet need for family planning was still high in 2012 as Sub-Saharan Africa recorded 60%, South Asia 34% and North Asia 50% (Guttmacher institute, 2013).

The findings of Ali and Okud, (2013) in a study conducted in Eastern Sudan to explore the factors affecting unmet needs for family planning provided a comprehensive and detailed report on the types of unmet needs, total demand, demand satisfied as well as the determinants of unmet needs for family planning. They found that previous and current use of contraceptives was 25.4% (206/812) and 26.2% (213/812) respectively. In addition, unmet needs for spacing was 15.1%, for limiting was 0.7%, total unmet needs was 44.8% and total demand for family planning was 71%. Their findings also identified WIFA whose pregnancy/birth was unwanted {13% (105/812)} and those whose pregnancy/birth was mistimed {16% (130/812)}.

The Ghana Demographic and Health Survey (GDHS) report of 2014 indicated that there was an unmet need of 51% among women aged 15-19 years and 14% among the 45-49 age groups. While the level of unmet need in rural Ghana was about 31%, it averages 29% in the urban centers (GDHS, 2014).The survey indicated that there was also unequal regional distribution with the Northern Region of Ghana recording an unmet need of 27.8% with a CPR of about 11% (GDHS 2014).

The 2014 Ghana health service annual report also revealed that the acceptor rate of family planning from 2010 - 2014 has been on the decline except in 2014 where there was a marginal improvement from 24.7% in 2013 to 29.1% in 2014. Aside that, there was a decrease of the acceptor rate from 34.7% in 2010 to 28.1% in 2011 which further decreased to about 25.2% in 2012 (GHS, 2014). This trend in family planning acceptor rate might have accounted for the high-unmet need for family

planning that was recorded in the 2014 GDHS. According to this survey, the Brong Ahafo and Upper West regions of Ghana recorded the highest acceptor rates of 56% and 50.9% respectively. However, the Northern Region of Ghana recorded the lowest (19%). The lowest figure recorded was however an improvement on the 2012 figure of 15.8% and the 2013 figure of 16.8%. These worrying levels of utilization of contraceptive services could be responsible for the high-unmet need in the region.

The West Mamprusi District is one of the 26 districts of the Northern Region that has under-performed concerning family planning service utilization within the district. While the Ghana health service recent policy is targeting a CPR of 30% among married women and 40% among the unmarried by the year 2020, the West Mamprusi District has since 2012 recorded a CPR of less than 10% (WMD annual health report, 2015). In 2013, there was CPR of 6.4% that was an increase from 5.1% in 2012. This further improved to 7.3% in 2014 before decreasing to about 4.8% in 2015. This trend is worrying especially at a time when the population of Africa is projected to experience a phenomenal growth between 2015 and 2030 and beyond (UN, 2015). From the literature about it is clear that if nothing is done about contraceptive utilization, unmet need may reach unsustainable levels and throw the world's population off gear.

Westoff Model for Unmet Need

Westoff adopted a model in 2012 for the determination of unmet need for Family Planning (FP) among Women in Fertility Age (WIFA) (Fig. 1). Since unmet need for FP is simply the gap between demand for FP methods and actual demand satisfied, the model provides a simple solution for calculating the proportion of those WIFA with unmet need in the population (Bradly et al., 2012). Since unmet need is a measure of WIFA reproductive intentions and the actual use of contraceptives, household survey questionnaire are structured to obtain information on reproductive intentions and their attitude towards the use of FP methods. Unmet need for FP included pregnant amenorrheic women whose pregnancies were mistimed, WIFA whose last birth was mistimed, those who were not sure if they were pregnant and not using any contraceptive. Additionally, women

not intending to have a baby in the next two (2) years but were not using any contraceptive at the time of the study are deemed to have unmet need for spacing. WIFA whose current pregnancy or last birth was unwanted and those who did not want to give birth at all but are not using any contraceptive are deemed to have unmet need for limiting. The sum of unmet need for spacing and limiting represents the total unmet need for FP (Westoff et al., 2012; Bradly et al., 2012).
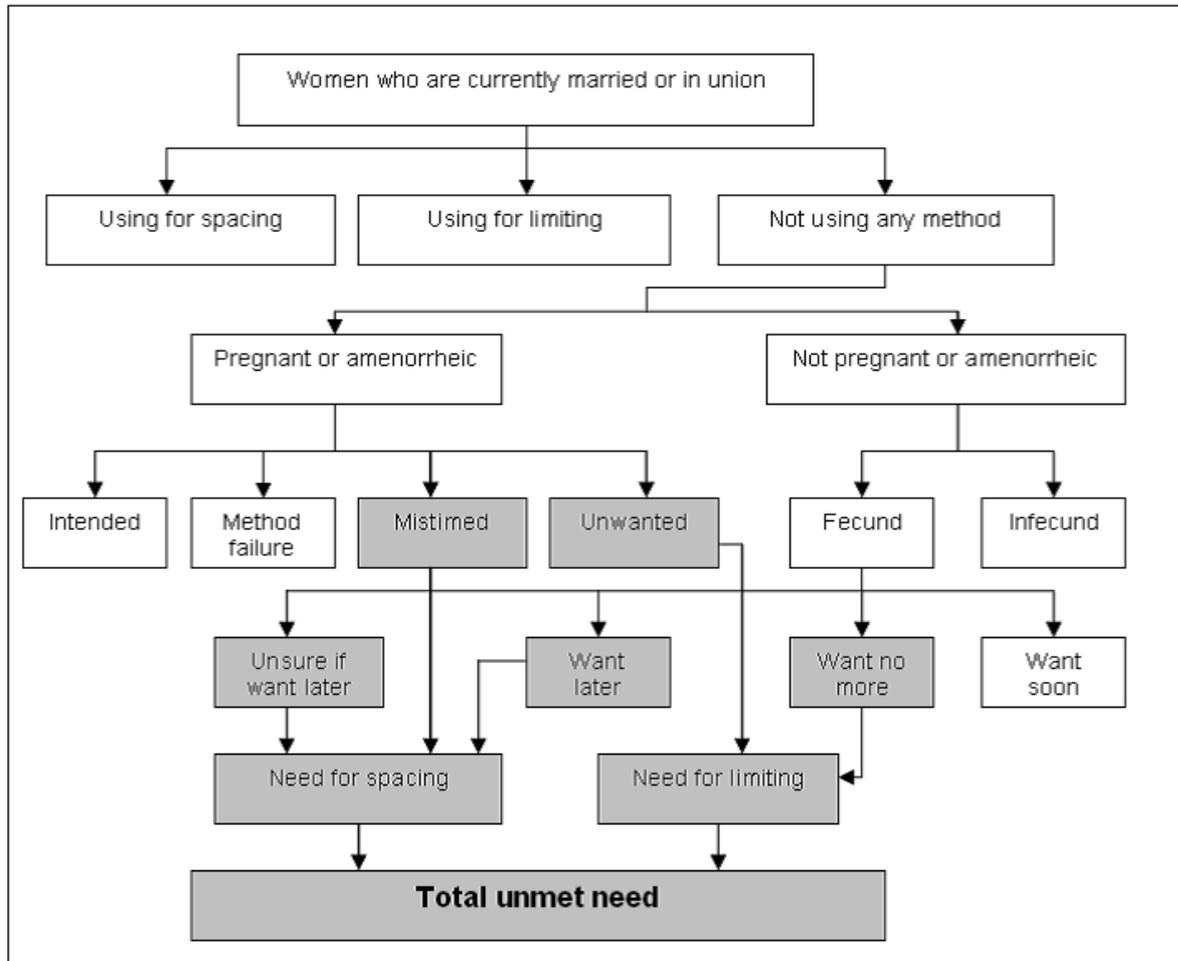

Figure 1: Framework for the estimation of unmet need for spacing, limiting and total unmet need for FP (Westoff, 2012)

Socio-demographic Factors influencing Unmet Need for Family Planning.

The USAID opined that, unmet need for family planning among young married women is highest in West and Central Africa averaging 29.3% while in the unmarried, unmet need averages 40%. West and central Africa records the highest of about 41.7%. The total demand for family planning among unmarried young women aged 15-24 years is consistently high (90%) in all regions (USAID, 2014). The proportion of demand satisfied is about 52.8% in West and Central Africa and 83.9% in Eastern Europe and Central Asia. Clearly, this presents a worrying picture as Africa has a projected population growth to be very high and contraceptive utilization very low compared with its total demand.

A study conducted by Gebreselassie et al. to assess the levels and trends in unmet need for family planning among adolescents and young women in Ethiopia found that there has been a decrease in unmet need for FP since 2000 to 2011 from an analysis of the Demographic and health surveys of 2000, 2005 and 2011. They intimated that, there was a decrease of unmet need among currently married women age 15-19 from 37% to 32% among ages 20-24, unmet need dropped from 39% to 22% and among those aged 25- 49 unmet need dropped from 36% to 26% (Gebreselassie et al., 2013). According to the study, there was a significant decline of unmet need among women aged 15-24 and 25-49 years in 2011. In a study by Okezie et al. to assess the socio-economic determinants of contraceptives among rural women in Ikwuano local government area of Obia state in Nigeria, it was revealed that the level of education of the couples, level of family planning knowledge, age and parity of woman, district of residence, and spousal communication influenced FP utilization (Okezie et al., 2010).

The findings of Ansari et al. (2015) on socio-demographic factors and prevalence of unmet need for family planning in urban and rural practice areas of M. R. medical college, Kalaburagi, brought to light some of the socio-demographic factors that contribute to unmet need for FP. They found that, about 41.1% of women aged 15-29 in urban areas have unmet needs for FP while about 58.9% of women aged 30-44 years in urban areas have unmet needs for FP. The also reported a 42.6% unmet needs among women aged 15-29 years in rural settings and 57.4% among those aged 30-44 years (Ansari et al., 2015). They also reported that unmet need for FP in both rural and urban areas decreases with the level of education, that is, the higher the level of education, the lower the level of unmet need. For instance while unmet need for FP was 77.92% and 60.74% among illiterates in urban and rural areas respectively, it was 2.3% and 4.97% among those with tertiary education (Diploma/degree/post graduate) in urban and rural areas respectively. Unmet need was also reported to be higher among those in laborer works such as farming than those in other professions such white color jobs. They also reported a high-unmet need for FP among women in the rural areas

(40.5%) compared with those in the urban settings (28.9%) (Ansari et al. (2015).

Knowledge Factors influencing Unmet Need for Family Planning (FP).

Knowledge and awareness on FP has been proven by some scholars to have an influence on contraceptive use and ultimately unmet need for family planning. Hodogbe & Badu-Nyaku, (2015) and Atuahene et al. (2016) reported in their studies that, knowledge of FP services, age and marital status, client privacy and good facility layouts were significant determinants of FP service utilization. Krakowiak-Redd et al. (2011) also found that low level of knowledge about contraceptives was a contributory factor to low utilization of FP services. The findings of Jangu, (2013) and Yussuf, (2014) were also revealing. Jangu (2013) found that many women were aware of FP but had poor knowledge on the various methods. Yussuf (2014) also found that knowledge among Muslim couples on FP was high but that did not influence their use of contraceptives.

Methodology

Study Area

The study was conducted in the West Mamprusi District of the Northern Region of Ghana. The 2010 population census reported that the district Women in Fertility Age (WIFA) population was about 34,508. The sub-districts within the West Mamprusi District from which the study was conducted included; Walewale, Kpesenkpe and Janga.

Study Design and Sample Size

A community-based, cross sectional survey using mixed study approach was adopted. The study was conducted among four hundred and fifteen (415) women in their fertility age (15-49 years) in the quantitative part of the study and four (4) key informants involved in the qualitative part of the study. Simple random sampling was employed in the selection of the communities. Purposive sampling technique was used to select WIFA and the key informants.

Data Collection

A semi-structured interview questionnaire and an interview guide were the instruments used to

collect the quantitative and qualitative data respectively. These instruments were pre-tested at Nasia community near the study area. Sixteen (16) communities out of one hundred and fifty (150) communities were randomly selected and participated in the study. The selection of houses within each community was based on the presents of Women in Fertility Age (WIFA) in the house. Where a house selected had no qualified participant, the next house was used and counting began from that next house.

Data Analysis

SPSS version 22 was used to analyze the quantitative data after it was checked for completeness, coded and entered into the software. Content analysis was used to analyze the qualitative data after it was transcribed and thematically presented. Unmet need for family planning was the dependent variable. Socio-demographic, knowledge, physical, cost, socio-cultural/religious and quality determinants were the independent variables.

Ethical Considerations

Written permission was sought and granted prior to the commencement of the study from the Department of Public Health (University for Development Studies), the Ghana Health Service and the West Mamprusi District Health Directorate. Oral permission and informed consent was sought from Assemblymen, Chiefs, household heads and participants of the respective communities before the administration of data collection instruments.

Results

Socio-Demographic Factors

The only socio-demographic characteristics that have a significant association with unmet need for FP were number of children (p=0.008) and household size (p = 0.04) (Table 1a)

Majority of the respondents {24.5% (72/294)} with unmet need for FP were within the 20-24 age group and 23.5% (69/294) of them were in the 15-19 age group. Furthermore, only 9.9%, 5.8% and 4.4% of those with unmet need for FP were in the 35-39, 40-44 and 45-49 age groups respectively. Most of the respondents {74.8% (220/294)} with

unmet need were also of the Islamic Faith, 25.2% (74/294) of them believed in Christianity and the only traditionalist who was a respondent had no known unmet need for FP. In addition, 78.2% (230/294) of those with unmet need were from the Mamprusi ethnic group, 15.6% (46/294) were from ethnic groups in the Upper East Region and 6.1% (18/294) were from other ethnic groups. About 38.1% (112/294) of respondents with unmet needs had no formal education, 26.5% (78/294) of them had basic education (Primary/JHS) and 35.4% (104/294) had higher education (SHS/Tertiary). Unmet need for family planning was also higher among WIFA who were married {70% (206/294)}, 25.2% (74/294) among those in union and 4.8% (14/294) among widows.

Table 1b shows that most of the respondents {66.8% (147/220) who had unmet need for FP were in polygamous marriages while only 33.2% (73/220) of them were practicing monogamy. Further, majority of the respondents with unmet need {51.8% (114/220)} were married for five (5) or more years, 35.9% (79/220) were married for 2-4 years and only 12.3% (27/220) were married for one (1) or less years. About 57.7% (152/294) of respondents with unmet need reported that their income was less than GhC 264 while 48.3% (142/294) of them reported that their income was GhC 264 or more. Majority of the respondents with unmet need {74.8% (220/294)} were in the rural areas while 25.2% (74/294) were in the urban areas. About 42.9% (126/294) of respondents with unmet needs reported that their husbands/partners have no formal education, 13.3% (39/294) said their partners have basic education and 43.9% (129/294%) have higher education. Most respondents with unmet need {46.6% (137/294)} reported that they have 4 or more children, 23.8% (70/294) had 1-3 children and 29.6% (87/294) of them had no child. There was however a significant relationship between number of children and unmet need for FP (P = 0.008). Also, majority of the respondents with unmet need {58.5% (172/294)} were in a household size of 8 or more, 27.6% (81/294) were in 5-7 household size and only 13.9%(41/294) of them were in 2-4 household size. The association between household size and unmet need is statistically significant (P = 0.04).

Table 1a: Socio-demographic factors against Unmet Need for Family Planning

Socio-Demographic Factors		Total unmet need for family planning			P-value
		No	Yes	Total	
Age groups	15-19	36 (29.8%)	69 (23.5%)	105 (25.3%)	
	20-24	32 (26.4%)	72 (24.5%)	104 (25.1%)	
	25-29	20 (16.5%)	55 (18.7%)	75 (18.1%)	
	30-34	11 (9.1%)	39 (13.3%)	50 (12%)	
	35-39	11 (9.1%)	29 (9.9%)	40 (9.6%)	
	40-44	8 (6.6%)	17 (5.8%)	25 (6%)	
	44-49	3 (2.5%)	13 (4.4%)	16 (3.9%)	
Total		121(100%)	294(100%)	415(100%)	0.56
Religion	Islam	83(68.6%)	220(74.8%)	303(73%)	
	Christianity	37(30.6%)	74(25.2%)	111(26.7%)	
	Traditional	1(0.8%)	0	1(0.2%)	
Total		121(100%)	294(100%)	415(100%)	0.68
Ethnicity	Mamprusi	85(70.2%)	230(78.2%)	315(75.9%)	
	Upper Eastners	28(23.1%)	46(15.6%)	74(17.8%)	
	Others	8(6.6%)	18(6.1%)	26(6.3%)	
Total		121(100%)	294(100%)	415(100%)	0.79
Educational level	None	56(46.3%)	112(38.1%)	168(40.5%)	
	Basic	28(23.1%)	78(26.5%)	106(25.5%)	
	Higher	37(30.58%)	104(35.4%)	141(34%)	
Total		121(100%)	294(100%)	415(100%)	0.272
Marital status	In union	38(31.4%)	74(25.2%)	112(27%)	
	Married	74(61.2%)	206(70%)	280(67.5%)	
	Widow	9(7.4%)	14(4.8%)	23(5.5%)	
Total		121(100%)	294(100%)	415(100%)	0.169

Table 1b: Socio-demographic factors against Unmet Need for family planning

Type of marriage		Total unmet need for FP			
		No	Yes	Total	P-value
	Monogamous	27(32.9%)	73(33.2%)	100(33.1%)	0.967
	Polygyny	55(67.1%)	147(66.8%)	202(66.9%)	
Total		82(100%)	220(100%)	302(100%)	
Duration of marriage	1 year or less	15(18.3%)	27(12.3%)	42(13.9%)	0.116
	2-4 years	35(42.7%)	79(35.9%)	114(37.7%)	
	5 or more years	32(39%)	114(51.8%)	146(48.3%)	
Total		82(100%)	220(100%)	302(100%)	
Income level	< GhȻ 264	67(55.4%)	152(51.7%)	219(52.8%)	0.445
	GhȻ 264 or more	54(44.6%)	142(48.3%)	196(47.2%)	
Total		121(100%)	294(100%)	415(100%)	
Residential area	Rural	85(70.2%)	220(74.8%)	305(73.5%)	0.402
	Urban	36(29.8%)	74(25.2%)	110(26.5%)	
Total		121(100%)	294(100%)	415(100%)	
Partner's educational level	None	62(51.2%)	126(42.9%)	188(45.3%)	0.141
	Basic	19(15.7%)	39(13.3%)	58(14%)	
	Higher	40(33.1%)	129(43.9%)	169(40.7%)	
Total		121(100%)	294(100%)	415(100%)	
Number of children	None	48(39.7%)	87(29.6%)	135(32.5%)	0.008
	1-3	36(29.8%)	70(23.8%)	106(25.5%)	
	4 or more	37(30.6%)	137(46.6%)	174(41.9%)	
Total		121(100%)	294(100%)	415(100%)	
Household size	2-4	29(24%)	41(13.9%)	70(16.9%)	
	5-7	32(26.4%)	81(27.6%)	113(27.2%)	
	8 or more	60(49.6%)	172(58.5%)	232(55.9%)	0.04
Total		121(100%)	294(100%)	415(100%)	
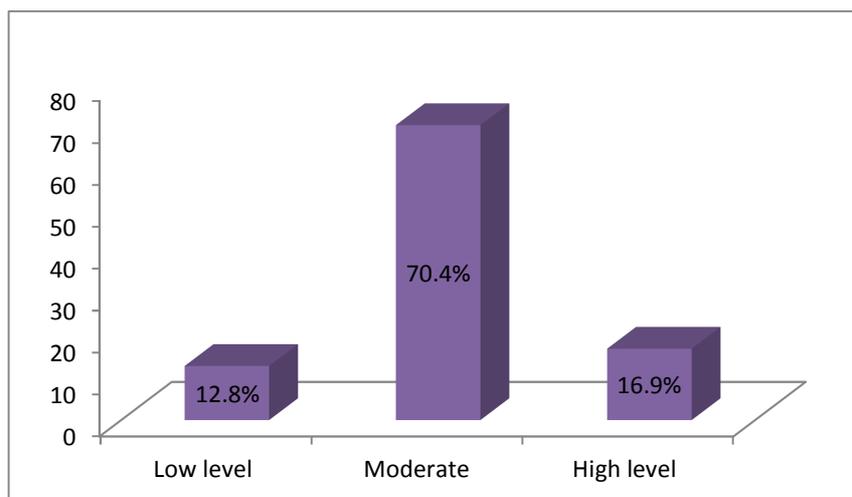
Figure 2: Levels of FP knowledge

Table 2: Relationship between knowledge and unmet needs

Heard of FP	Unmet needs for FP			
	No	Yes	Total	P-Value
Yes	119 (98.3%)	290 (98.6%)	409 (98.6%)	
No	2 (1.7%)	4 (1.4%)	6 (1.4%)	0.813
Total	**121 (100%)**	**294 (100%)**	**415 (100%)**	
Source of Information				
Radio/Television	45 (38.1%)	112(38.6%)	157 (38.5%)	
Health Workers	42 (35.6%)	82(28.3%)	124 (30.4%)	
Peers	27 (22.9%)	71(24.5%)	98 (24%)	0.187
Market	4 (3.4%)	25(8.6%)	29 (7.1%)	
Total	**118 (100%)**	**290 (100%)**	**408 (100%)**	
Levels of knowledge				
Low level	17 (14%)	36 (12.2%)	53 (12.8%)	
Moderate level	86 (71.1%)	206 (70.1%)	292 (70.4%)	0.789
High level	18 (14.9%)	52 (17.7%)	70 (16.9%)	
Total	**121 (100%)**	**294 (100%)**	**415 (100%)**	

Knowledge Level of Family Planning

Respondents who scored from 0-6 were deemed to have low knowledge level, those who scored 7-13 had moderate knowledge level, whilst those who obtained 14 to 20 marks were deemed to have high knowledge level. From figure 2, majority of the respondents (70.4%) had moderate level of knowledge; those that had low level of knowledge constituted 12.8% of respondents and 16.9% were deemed to have high level of knowledge.

The relationship between awareness, source of information and levels of knowledge with unmet needs was assessed and is presented in Table 2. An overwhelming majority of respondents {98.6% (290/294) who had unmet need for FP said they had heard of FP while only 1.4% (4/294) of them said they had never heard of FP. In addition, 38.6% (112/290) of respondents with unmet need said they heard of FP from radio/television, 28.3% (82/290) with unmet need had their information from a health facility, 24.5% (71/290) with unmet needs had their information from peers and only 8.6% (25/290) of them had their information from the markets. Few of the respondents {12.2% (36/294)} with unmet need had low level of FP knowledge, majority of them {70.1% (206/294)} with unmet need had moderate knowledge and 17.7% (14/294) of those with unmet need had high level of knowledge. A key informant at the District hospital confirmed these findings with the remark,

"We are doing a lot in the district to raise awareness and increase knowledge levels even though we are financially challenged…………for now almost every woman have heard about FP but a lot still have little knowledge on the various methods because most of these methods we find it difficult to explain to them in the local dialect"…….. (35-year-old Nurse at the District hospital FP unit).

Discussion

Socio-Demographic Factors Contributing to Unmet Need for Family Planning

Studies have shown that socio-demographic factors have an influence on unmet needs for family planning (FP). This study has confirmed some of the reported findings and with new revelations that are critical in policy formulation and implementation. This study found that WIFA within the age group of 20-24 years had the highest level of unmet need for FP (24.5%) followed by those in the 15-19 age groups with an unmet need of 23.5% while those within the age groups of 35-39, 40-44 and 45-49 recorded the lowest unmet need for family planning (9.9%, 5.8% and 4.4% respectively). This study found that unmet need for FP decreases as women gets older. This is probably the case because most women between the ages of 14 and 30 years are more sexually active but may not wish to have children. Most women around these age groups are usually more interested in pursuing a carrier first rather than making children but may find contraceptives inappropriate. This finding agrees with Wulifan et al. (2016) when they intimated that unmet needs decrease with age. Similarly, the GDHS (2014) reported a 50.7% and 34% unmet need for FP among teenagers and young adults age 15-19 and 20-24 year groups respectively but recorded an unmet need of 28.5% and 14.2% among women in the age groups of 40-44 and 45-49 respectively. This further confirms the findings of this study that unmet needs decreases as women gets older. This study also found that there is a 74.8% of unmet needs among WIFA of the Islamic Faith and 25.2% among Christians and the only traditionalist who was a respondent did not report any unmet need for FP. This was corroborated by a key informant with the following remarks: *"In Islam, a woman experiencing her menses or bleeding per vagina is considered unclean and not qualified to pray, because some women bleed or spot when they are on some methods……. most of them are discouraged from using contraceptives"…….* [35-year old Nurse at FP unit in the District Hosp.].

Majority (78.2%) of the respondents with unmet needs for FP were from the Mamprusi ethnic group. This is probably because they were the major ethnic group in the study area and because most of them practiced the Islamic Religion. Many of the respondents without any formal education had unmet needs for FP (38.1%) but surprisingly, those with higher level of education reported high unmet need for FP (35.4%) than those with basic education (26.5%). This is so because those with higher education may be resorting to other natural methods such us the sympathothermal or

withdrawal methods which needs high level of skill to practice perfectly. This finding contradicts the findings of Ansari et al., (2015) who found that the higher the level of education the lower the level of unmet needs for FP. Most of the WIFA who were married had unmet needs for FP (70%) compared with those who were single (25.2%) or widowed (4.8%). This agrees with the 2014 report of the USAID that unmet need is highest among the married in central and West Africa but disagrees with the fact that the average unmet need for FP among the unmarried (40%) is higher than the married (29.3%). WIFA in polygynous marriages had more unmet need for FP (66.8%) than those in monogamous marriages (33.2%). The competition for children that may be unplanned in polygynous marriages may be accounting for this high-unmet need among this group of WIFA. A key informant opined that, *"usually those in polygamous marriages especially those who are Muslims compete among themselves in terms of children because most people hold the view that women are children producing machines once they are married......this is partly one of the reasons why most women in polygamous marriages do not use contraceptives"* [45-year old midwife at the Dist. RCH]. This study also found that the longer the duration of marriage the higher the level of unmet needs for FP. Unmet need was higher among those who were married for 5 years or more (51.8%), and lowest among those who were married for a period of one (1) year or less (12.3%). This is the case probably because newly married couple may need some time to prepare for their children. They may deliberately try to delay childbirth but as time goes on the fear of menopause and the need to deliver may increase even though they may want to space the birth of their children. This results in the high-unmet need among married couples with delayed births after marriage. This study also confirms the findings of Ansari et al., (2015) and Wulifan et al. (2016) in which it was reported that unmet need for FP was highest among rural dwellers than urban dwellers. From this study, unmet need for FP was 74.8% among rural WIFA and 25.2% among urban WIFA. This is because the opportunities and amenities available to WIFA in urban areas are virtually absent in the rural settings. This study has also shown that there is a high-unmet need for FP

among WIFA whose partners have higher education (43.9%) than those with basic education (13.3%) and those without formal education (42.9%). This may be partly because of the influence of religion on contraceptive use. *"Most highly educated Islamic scholars in their attempt to protect the religion may not want to oppose God by allowing their wives to use contraceptives"* [27-year-old midwife at Wulugu health center].

Respondents with many children are shown to have high-unmet need for FP than those without any child at all. Those who also belong to high household sizes also have high-unmet need for FP compared to those belonging to small household sizes. The relationship between number of children and unmet needs for FP was statistically significant (P = 0.008) and household size was found to be significant (P = 0.04). The implication of this is that, the higher the number of children or household size, the higher the level of unmet need for family planning. This finding is in contrast with the views of Okezie et al. (2010) when they opined that those with many children were more likely to use contraceptives than those without children. The findings of this study confirm the competition for children in polygynous Islamic communities as corroborated by the key informants in this study.

Knowledge Factors Contributing to Unmet Need for Family Planning

Most studies have cited lack or low level of knowledge as a contributory factor to unmet need for FP. Scholars such as Krakowiak-Redd et al. (2011), Hodogbe & Badu-Nyaku, (2015) and Atuahene et al. (2016) have reported low levels of knowledge as a significant factor contributing to unmet need for FP due to its ability to limit access to FP services. The findings of this study however present a contrary view because an overwhelming 98.6% of respondents with unmet need reported that they had heard about FP.

Jangu (2013) reported that awareness of FP does not necessarily translate into use of FP services. Evidently, the high-unmet need among those who have heard of FP is a confirmation of the findings of Jangu (2013). Many of the respondents with unmet need for FP indicated their source of information was from the radio/TV stations (38.6%). Those who heard of FP from health

workers had 28.3% of unmet need. Unmet needs among those who had their information from peers and the market was comparatively lower. This finding raises questions about the effectiveness of the education on FP that is offered on various media and platforms and whether quacks are misinforming the uninformed. The finding of this study regarding levels of knowledge also contradicts the findings of the scholars mentioned above. It is revealed in this study that majority of the respondents with unmet need had moderate knowledge on FP (70.1%) and even among those with high knowledge, the rate is higher (17.7%) Than Those With Low Knowledge (12.2%).

Yusuf (2014) Also Found That High Level Of knowledge among Muslim couples did not influence their use of FP. This corroborates with the findings of this study as many of those with moderate knowledge had unmet need for FP. This probably is the case because of the influence of other factors such as Religion and partner resistance as well as fear of suffering adverse effects associated with some of the methods. It also confirms the statement that "knowledge is necessary but not sufficient to trigger a change in behavior".

Conclusion

The socio-demographic characteristics that were found to be significantly associated with unmet need for family planning were number of children (P=0.008) and household size (P=0.04). About 24.5% of the respondents who had, unmet need for FP were within the 20-24 age group and 23.5% of the respondents were in the 15-19 age group. Further, about 74.8% of Muslims had unmet need for FP as against an unmet need of 25.2% among Christians and 70% of respondents who were married had unmet need for FP.

In addition, an overwhelming 98.6% of respondents who had heard of FP had an unmet need for FP and 38.6% of the respondents with unmet need said they had their information from a radio/TV station. Majority of the respondents (70.1%) with unmet need for FP also had moderate knowledge on FP while only 17.7% of those with higher level of knowledge had an unmet need for FP.

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