

Determinants and Use of Family Planning Among Young Women (18-28 Years) Attending Health Facilities in Garu-Tempene District of Ghana

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Abstract

Background: Improving family planning use across Sub-Saharan Africa is critical for improving women's health outcomes. **Aim:** We aim to provide new perspectives of family planning use in a rural setting of Ghana. **Method:** Applying a descriptive cross-sectional design, a total of 720 young women attending health facilities were interviewed with a questionnaire whiles 40 other participants were engaged in focus group discussions. Six in-depth interviews with midwives were conducted. Quantitative data was analysed using SPSS to generate frequencies and associations whiles qualitative data was analysed using content analysis. **Results:** Ever use was higher (54.8%) than current use (33.9%). Statistically significant relationships were found between marital status and family union type for current users. Lack of partner ($p < 0.001$) and family support ($p < 0.001$), lack of access on demand ($p < 0.001$), ever educated on use ($p < 0.001$), ever experience of side effects ($p = 0.018$), poor knowledge ($p < 0.001$), unsatisfactory services ($p < 0.001$) and negative attitude of providers ($p < 0.001$) were significant self-reported factors influencing family planning use. Ever use ($p < 0.001$, a OR=49.4) and access on demand ($p < 0.001$, a OR=2.5) significantly predicted family planning use. **Conclusions:** Addressing current user's myths and misconceptions whiles addressing institutional barriers have positive effects on family planning use for young women.

Keywords: family planning, use, determinants, barriers, young women

1.0 Introduction

Improving family planning (FP) use across Sub-Saharan Africa (SSA) is fundamental in advancing maternal health (Annan, 2010; UNICEF & WHO, 2012). Maternal and reproductive services use in SSA is low across all ages, especially among economically impoverished groups and least educated women in the society (Darroch & Singh, 2011; WHO, 2010, 2011). An estimated 17 percent of married women in less developed countries would prefer avoiding pregnancy; but are currently not using any form of family planning (Ross & Winfrey, 2002). Additionally, more than one-third of all pregnancies in developing countries are considered unintended, with an estimated 19% of these needing abortion care (Guttmacher Institute, 2012). Of those seeking abortion care, unsafe abortions account for 13% of all maternal deaths globally (Guttmacher Institute, 2012). Despite evidence that worldwide fertility rates have been declining and family planning use increasing for the past two decades, many women who desire to stop having children or delay child bearing are not meeting their demands for contraception (Population Reference Bureau, 2009; WHO & UNICEF, 2012). This is particularly the case in West Africa where recent indices for maternal and reproductive health is worst among countries in SSA (Bearinger, Sieving, Ferguson, & Sharma, 2007; UNICEF & WHO, 2012)

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In Ghana, knowledge of FP is universal and awareness is high among both sexes, with injectable, pill and male condom being the most widely known and used methods (GSS, GHS, & Macro, 2009). Ghana's current population stands at 25 million of which an estimated 12,633,978 are women (GSS, 2012), with close to 60% living in rural areas across the ten regions. The Ghana Demographic Health Survey (GDHS) 2008 report puts the median age at first sexual intercourse for women aged 15-49 years as 18 years, and at this age, almost half of women (48%) were reported having had sexual intercourse. The GDHS 2008 report indicates by age 20, more than 70% of Ghanaian girls have had sex. Surprisingly however, among sexually active adolescents (15-19 years), 92% do not use any modern method of FP. In addition, the GDHS report shows that 13% of Ghanaian adolescents (15-19 years) are pregnant annually. This may reaffirm the assertion that, despite the high levels of sexual activity among Ghanaian adolescents majority still do not use FP or use them inconsistently (Ohene & Akoto, 2009). Ghana's current unmet need for contraception is high among 15-19 year olds; considering also that it increased from 50% in 1998 to 57% in 2003 (GSS et al., 2009). Additionally, among young Ghanaian women, unsafe abortion is common with one in eleven women within the ages 20-24 having had an abortion in the 5 years prior to the Ghana Maternal Health Survey (GMHS) in 2007 (Sundaram, Juarez, Bankole, & Singh, 2012). The GMHS estimated that induced abortions accounted for 12 percent of maternal deaths in Ghana. These statistics have shown worrying trends for young women's use of family planning services.

Previous studies in rural Ghana on women's use of FP identified provider relational practices, economic/institutional factors, cultural barriers, and women's lack of autonomy for decision making as factors influencing adoption and use of some FP services (Adongo et al., 1997; Yakong, Rush, Bassett-Smith, Bottorff, & Robinson, 2010). In the Garu-Tempene district of northern Ghana where this study was conducted, health reports show that despite continual improvement in awareness of FP services in rural areas, use of FP services remain low (GHS, 2008). Top-down approaches to community level FP interventions within the health care delivery system is still prevalent; resulting in low acceptance rates and use due to context specific barriers and determinants driving use.

This study seeks to provide new evidence on perspectives among young mothers, health care staff, and male spouses in rural northern Ghana. The study covered an entire district and all functional clinics in the district at the time they were visited. We attest that no comprehensive district and context study such as on the subject matter has been undertaken in the district. Using mixed method approaches, we explored several explanatory variables to determine the most significant predictors that influence uptake of FP services in this rural setting in Ghana.

2.0 Methods

2.1 Country context and Study Setting

Ghana, a lower middle income country in West Africa, is the country context for this study. The research setting is the Garu-Tempene district, a predominantly rural district of the Upper East Region of Ghana. The Garu-Tempene district is located in the north eastern corner of Ghana. It shares boundaries with Bawku Municipal to the North; Bunkpurugu-Yunyoo district to the South; Bawku West district to the West; and the Republic of Togo to the East. The study setting is inhabited by many tribes; mostly Bimobas (66%) and Kusasis (24%) with other minority tribes such as Busangas (4%), Mamprusis (4%) and Fulanis (2%). The district's climate is characterised by pronounced dry and wet seasons, typical of any setting in northern Ghana. The vegetation is mainly of the Sahel savannah. Agriculture is predominantly still rural with subsistence farming still being largely practiced. The 2010 population and housing census for the district gave a district population of 130,003, disaggregated into 62,025 males and 67,978 females (GSS, 2012). The percentage of women of reproductive age in the district stands at 24.0% per the population of the district.

Evidence from previous studies in the district indicates that, women begin sexual activity around the age of fourteen and most give birth before the age of eighteen while birth control is virtually absent although spacing using Lactational Amenorrhea Method (LAM) is sometimes practiced by younger mothers (Meij et al., 2009). The district had 24 functional health facilities at the time of the study. These comprised of six (6) health centres, four (4) clinics, eleven (11) Community-based Health Planning and Services (CHPS) centres and three (3) privately owned health facilities. These facilities provided the entire district health needs, serving an estimated 194 communities.

2.2 Design and Sampling

Study design was descriptive cross-sectional. Study participants included women between the ages of 18-28, women of reproductive age (18-49 years), men and health clinic staff. Both quantitative and qualitative data were collected and analysed. For the quantitative data, a semi-structured questionnaire was administered to thirty (30) purposively selected young mothers attending ante- or post-natal sessions from each of the twenty four (24) functional health facilities at the time of the survey. Health facility bio-data and registers were checked consistently for each selected participant to ensure they met the age inclusion criteria. A total of 720 young mothers provided responses to the questionnaire across all facilities. To gather qualitative data, a purposive sampling was also employed in selecting respondents for FGDs and IDIs. FGDs were held for both men and women groups while IDIs were held with midwives. Community health staff from sub-districts assisted in the selection of FGD and IDI participants. Midwives who showed high levels of professionalism during clinic observations were recruited for IDIs.

2.3 Instrumentation and data Collection Procedures

Data collection was done between February and March, 2012 using four trained research assistants who had good knowledge of at least two of the local dialects in addition to English. A semi structured pre-coded questionnaire was used to collect quantitative data from the young mothers. The questionnaire was divided into three parts. Part A elicited responses on social and socio-demographic characteristics of participants. Part B gathered information on women's current and ever use of FP, barriers to use and knowledge of FP needs in their communities and part C elicited women's views on major determinants to use and the availability of community health family services. Respondents were interviewed in antenatal rooms that ensured individual confidentiality.

Qualitative and quantitative data were collected simultaneously. For focus group discussions, two separate meetings were held with women participants (n=10 per group) while discussions with men (n=10 per group) were also held separately. In total, forty (40) women and men took part in these discussions. For in-depth interview, six (6) midwives in charge of sub-district health centres were interviewed. FGD participants were mothers within the age 18-49 years with multiple births while married male spouses who expressed interest in the study were included as men FGD participants. Semi-structured interview guides provided leading questions while interactive probes were used for further clarification of views expressed. All FGDs and IDIs were audio recorded for later transcription from the local dialect to English. The audio recording enabled respondents information to be captured in their 'right state' that ensured verbatim transcription after the discussions. Discussions lasted between two to three hours depending on responses to leading questions as well as spontaneous questions that arose. The data gathered from these deliberations served to corroborate information from the quantitative questionnaires.

2.4 Ethical consideration

Approval for conducting the research was given by the University for Development Studies ethics committee while the Garu-Tempene District Health Management Team (DHMT) also provided written approval for conducting the research. All respondents provided a thumb printed or signed agreement form depending on the individual literacy level alongside verbal consent during data collection. Privacy was further guaranteed by administering the questionnaires, in-depth interviews and focus group discussions in environments that ensured that individual views and concerns remained confidential.

2.5 Data Analysis

Data entry, cleaning and analysis was performed using SPSS versions 16. Frequencies were generated for all socio-demographic characteristics. Bivariate analysis (Chi square) and multivariable logistic regression (LR) analysis were used to test relationships between socio-demographics and other variables. Odds ratios were generated with 95% CI to determine statistical significance for use and predictors for FP use. A stepwise backward LR was used to test for predictive factors or determinants to use of FP. All variables studied were considered statistically significant at $p < 0.05$. Recorded audio data from FGDs and IDIs were transcribed in English and field notes were typed in English. These were analyzed manually using latent content analysis where notes from the field and transcriptions are read through to generate themes. A report was then summarized and written according to the thematic areas. These key themes from the data were used to compliment the findings from the respondent interviews.

3.0 Results

The results on socio-demographic characteristics of respondents are presented in Table 1. The mean age of respondents was 25.0 (SD-2.3) years with a median age of 26. Majority of respondents (473 representing 65.7%) were within the age bracket of 26-28 years. On marital status, 654 respondents (90.6%) were married, whilst 8 (1.1%) 16 (2.2%) and 44 (6.1%) were widowed, either separated or divorced and never married respectively. Majority (503 representing 69.7%) had no formal education and most (507 representing 70.2%) lived in monogamous family settings. Only 35 respondents (4.8%) were employed while majority 687 (95.2%) were unemployed. In general, respondents were more likely to be within the age range 26-28 years with no formal education, married and in monogamous unions. They were also more likely to belong to the Kusasi ethnic grouping within the district.

Table 1: Distribution of respondents by socio-demographic characteristics

Characteristics	Frequency N=720	Percent
Age group		
18-21 yrs	56	7.8
22-25 yrs	191	26.50
26-28	473	65.7
Mean 25 SD ± 2.32		
Educational Status		
Primary/JHS	161	22.4
Secondary/SHS	42	5.8
Tertiary	16	2.2
Never Educated	503	69.7
Religion		
Christianity	351	48.6
Islam	339	47.0
Other	32	4.5
Marital Status		
Married	654	90.6
Never Married	44	6.1
Divorced/separated	16	2.2
Widowed	8	1.1
Employment Status		
Unemployed	687	95.2
Employed	35	4.8
Family Union		
Polygamy	215	29.8
Monogamy	507	70.2
Ethnic Backgrounds		
Kusasis	419	58.0
Bimoba	185	25.6
Busanga	93	12.9
Mamprusi	23	3.2
Other	2	0.3

3.1 Family Planning use

A little over half of respondents (54.8%) ever used family planning, whilst current use for family planning was 33.9%. To prevent or to delay pregnancy (208 representing 83.9%) was the major reason for current use of family planning. In addition, injectables and pills were the most preferred methods; this was largely agreed on by discussants during FGD and in-depth interviews with women.

"I have tried both the Depo and Norigynon and I think I like the Depo. It makes me look fresh and fat and always willing to go back there for the injection..." (24 year-old woman during FGD)

“Most women come here and ask for the Depo because they are hiding from their husbands and friends. They just take and go and come back with their cards anytime to find out if they are due for the next injection....” (In-Depth Interview with Midwife 2)

Bivariate analysis results from Table 2 shows current use of FP as significantly associated with marital status ($p>0.037$) and family union type ($p>0.023$). However, age ($p=0.091$), educational status ($p=0.135$), religion ($p=0.866$), employment status ($p=0.463$), socio-economic norms and values ($p=0.244$) were not significantly associated with FP use among young women. Results also revealed that only 0.4% of current users (i.e. 245 women representing 33.9%) have used FP consistently for the last five years whereas the proportion which have used FP consistently for the last 1 year was much higher (46.2%). A large number of young women (76.3%) who used FP for the first time did so between the ages of 20-24 years. Method choice decisions for use were largely influenced by two reasons; self-choice (58.2%) and choices made for them by health staff (35.7%). Some young women users willingly involved health staff in taking FP decisions since they were disempowered to make their own independent choices. Majority (66.4%) of ever and current users asserted they were satisfied with their level of FP use while 33.6% expressed dissatisfaction.

Table 2: Bivariate analysis of current contraceptive use and socio-demographic characteristics
Current Use of family planning

Variable	Yes (%)	No (%)	χ^2	P value
Age group				
18-21	12 (4.9)	44 (9.3)	4.790	0.091
22-25	31 (12.7)	66 (13.9)		
26-28	202 (82.4)	365 (76.8)		
Educational status				
Primary/JHS	67 (27.3)	94 (19.8)	5.563	0.135
Secondary/SHS	13 (5.3)	29 (6.1)		
Tertiary	6 (2.4)	10 (2.1)		
Never Educated	159 (69.9)	342 (72)		
Religion				
Christianity	111 (46.9)	236 (49.7)	0.731	0.866
Islam	119 (48.6)	218 (45.9)		
Other	11 (4.5)	21 (4.4)		
Marital Status				
Married	227 (92.7)	425 (89.5)	8.476	0.037*
Never Married	7 (2.9)	37 (7.8)		
Divorced/Separated	8 (3.3)	8 (1.7)		
Widow	3 (1.2)	5 (1.1)		
Family Union				
Monogamy	218 (30.3)	502 (69.7)	7.559	0.023*
Polygamy	502 (69.7)	218 (30.3)		
Employment status				
Unemployed	208 (28.9)	512 (71.1)	1.541	0.463
Employed	512 (71.1)	208 (28.9)		

Young mothers' views on satisfaction derived from their current or ever use of FP however showed varied opinions during FGDs and IDIs. Women openly expressed these views on service satisfactory levels encountered;

“Some of the nurses are very friendly. They encourage us to negotiate with our husbands on family planning issues and are really supportive when we visit them”. (23 year old young user during FGD)

“When I get there, I just move straight to the room to see the nurse since people are not aware why I am there. Is always fast and the nurses are supportive most times. Am always happy and satisfied since people don't know why am there because of where the service is given”. (19 year old user during IDI)

"The young nurses sometimes speak anyhow to us because they feel we have never been to school. They are not friendly at all and make me afraid to go there for services. I have been going to the Clinic in town because of their attitude towards us anytime we visit".(20 year old user during IDI)

"Is very bad to leave your work and come and sit in the queue for long before you are attended to. I don't like the way the nurses make us waste time anytime we go there".(24 year mother during FGD)

Fear of side effects, husbands 'refusal' for FP use, and lack of appropriate information concerning FP use were among reported barriers impacting young mothers FP desires. An appreciable number of mothers (23.5%) cited fear of side effects as a barrier to use. About 16.1% of respondents had been informed about the side effects of their choice of methods while 5.4% of respondents indicated they had previously had side effects with their method choices. Among health side effects experiences encountered by mothers, excessive bleeding and prolonged menstrual period was high (35.1%). Pregnancy delays (27.0%), abdominal pains (24.3%) and absence of menstrual periods (13.5%) were respectively cited as additional side effects of use. Table 3 shows Chi-Square analyses of variables that were considered as possible barriers to the current use of FP. Those that showed significant associations were; lack of partner support ($p < 0.001$), lack of family support ($p < 0.001$), lack of access on demand for services ($p < 0.001$), poor attitude of providers ($p < 0.001$), ever educated by a health staff on use ($p < 0.001$), non-satisfaction from use ($p < 0.001$), ever experience of side effects with regards to use ($p = 0.018$) and poor knowledge of where to access services ($p < 0.001$). However, there was no significant association between money ($p = 0.804$) and fear of side effects ($p = 0.627$).

Table 3: Significant association between Barriers and Current use of Family Planning

Variable		Current Use		χ^2	P Value
		YES	NO		
Partner Support	Yes	199 (61.6)	124 (38.4)	181.326	<0.001*
	No	46 (12.6)	322 (87.5)		
Family Support	Yes	180 (61.9)	111 (38.1)	153.144	<0.001*
	No	65 (16.2)	335 (83.8)		
Access on Demand	Yes	177 (61.7)	110 (38.3)	145.923	<0.001*
	No	68 (17.0)	333 (83.0)		
Ever Experience of side effects	Yes	19 (57.6)	14 (42.4)	5.577	0.018*
	No	216 (37.0)	367 (63.0)		
Ever Educated by Health Staff	Yes	217 (43.1)	287 (56.9)	60.992	<0.001*
	No	28 (13.0)	188 (87.0)		
Knowledge of where to access services for use	Yes	240 (40.9)	347 (59.1)	65.468	<0.001*
	No	5 (3.8)	126 (96.2)		
Satisfaction from Use	Yes	232(58.1)	167(41.9)	54.654	<0.001*
	No	11(5.4)	191(94.6)		
Attitude of Providers	Yes	215 (45.6)	256(54.4)	39.527	<0.001*
	No	24(16.6)	121(83.4)		

*Statistically significant at 0.05 level

3.2 Determinants of Family planning Use

To measure the extent of individual factors serving as predictors of FP use, all variables showing significance during bivariate analyses for women's use of FP were entered into a logistic regression modelling.

Table 4 shows the outcome of predictability of variables or in other words determinants of FP use in the study using backward stepwise LR.

Table 4: Significant associations between current use, socio-demographics and other factors

Variables		Number of Respondents included in study	Crude OR (P Value)	95% C.I of OR
Age	18-21	56	2.029 (0.036)	1.048-3.930
	22-25	191		
	26-28	466		
Marital Status	Married	652	3.171(0.169)	0.613-16.408
	Never Married	44		
	Divorced	16		
	Widowed	8		
Family Union	Monogamy	456	1.186 (0.316)	0.850-1.657
	Polygamy	264		
Educational Status	Primary	161	1.141 (0.030)	1.013-1.285
	Secondary	42		
	Tertiary	16		
	Never Educated	501		
Employment Status	Employed	512	0.887 (0.748)	0.427(1.843)
	Unemployed	208		
Ever use of FP	Yes	396	125.165 (<0.001)	45.748342.447
	No	324		
Knowledge of access	Yes	587	17.429 (<0.001)	7.024- 43.247
	No	128		
Ever educated on use	Yes	503	5.077 (<0.001)	3.288-7.839
	No	211		
Access on demand	Yes	287	7.880 (<0.001)	5.536-11.216
	No	396		
Convenience on use	Yes	429	5.555 (<0.001)	3.369-9.159
	No	75		
Partner support	Yes	321	11.234 (<0.001)	7.669-16.456
	No	368		
Family support	Yes	291	8.358 (<0.001)	5.856-11.928
	No	398		
Satisfaction from use	Yes	397	24.122 (<0.001)	12.726-45.722
	No	202		
Does religion forbid use	Yes	73	1.656 (0.008)	1.138-2.410
	No	567		
Money as hindrance	Yes	78	0.942 (0.812)	0.574-1.545
	No	601		
Side effects experience	Yes	33	2.306 (0.021)	1.133-4.693
	No	579		
Fear of side effects	Yes	69	0.926 (0.627)	0.680-1.261
	No	605		

Table shows significant socio-demographic and other variables with possible associations with family planning use in this study. Binary logistic regression analysis generated crude odds of significance ($p < 0.05$)

The odds for using FP was shown to be about 49 times ($p < 0.001$, C.I 10.593-230.191) higher for mothers who have ever used FP compared to those who have never used it (see Table 5). With regards to access on demand for FP mothers who had access on demand were 2.5 times ($p < 0.001$, C.I 1.598-3.197) more likely to use than those who did not have.

Table 5: Key Determinants to family planning use

Variables		Number of Respondents included in study	OR (P Value)	aOR (P Value)	95% C.I
Ever use of FP	Yes	396	125.165(<0.001)	49.380(<0.001*)	10.593-230.191
	No	324			
Access on Demand	Yes	396	7.880 (<0.001)	2.502(<0.001*)	1.598-3.197
	No	287			

*Significant Predictors to Use

4.0 Discussion

This study, conducted in a predominantly rural setting in northern Ghana, among young women has shown a high level of marital union among them. Many of these young women were multifarious, which gave indication that they were perhaps given out for marriage at very early ages. Early marriage of girls is a practice that is pervasive in the study district and many such girls are already mothers before their twentieth birthday (Meij et al., 2009). The revelation that more than half of the respondents had their first birth when they were between the ages of 18-19 years corroborates the GDHS (2008) findings that, teenage childbearing is high in Ghana, where 13% of women aged 15-19 years are already mothers or are pregnant with their first child.

The levels of FP (ever and current) use observed in this study points to increasing levels of FP discontinuation particularly among these young women. Perhaps, the pressure on young married women to bear children, which is a cultural norm in these settings, could explain these findings. The fact that most of the respondents from this study were in polygamous marriage unions may explain the levels of use as shown in this study. In monogamous relationships, the pressure to space births is likely to be higher than in polygamous unions and married young mothers in monogamous relationships are significantly more likely to use FP than those in polygamous marriages as in this study. Some studies from Nigeria (Adebowale, Fagbamigbe, & Bamgboye, 2011; Anthony, Joseph, & Emmanuel, 2009) observed that most young women who use FP were married and did so for the same reasons. Increasing awareness on optimal reproductive health outcomes is perhaps one reason why young mothers would want to space their child births and also for easing the pressure on these young mothers to have more children by their partners and families. On the other hand, young mothers in polygamous unions enjoy a form of natural FP or birth spacing since rivals are often elected to give birth in turns.

Considering the influence of educational status on use of FP, findings in developing countries (Beekle & McCabe, 2006; Metcalfe, 2010) show the existence of a positive correlation between a woman's educational status and her use of FP. In contrast, most young women in this study did not have any formal education which perhaps explains the quite low level of contraceptive prevalence rate (CPR). The lack of formal education could have resulted in reinforced doubts, misconceptions and failed messages which have all been long documented to be significant barriers with regards to use (Babalola, 2014; Cleland et al., 2006; Somé, Sombié, & Meda, 2013) and in many instances resulted in messages on FP not yielding their intended purposes for the target audience. The appreciably lower numbers (30.4%) of young women receiving some form of education did not seem to impact on the CPR. This supports available evidence that, female education up to the secondary level does not necessarily translate into or guarantee use of FP in the future by a mother (Chacko, 2001). Some studies around the world have also indicated that average educational levels for women in a community can have a negative association with individual fertility, as shown in Peru (Patrinós & Psacharopoulos, 1997), Philippines (Hirschman & Guest, 1990; Hirschman & Young, 2000), and South India (Moursund & Kravdal, 2003).

On the other hand, (Amin, Diamond, & Steele, 1996) in Bangladesh, and (Kravdal, Kodzi, & Sigle-Rushton, 2013) in Zimbabwe have established the existence of a certain degree of positive correlation between literacy levels at the community and individual level with contraceptive use, resulting from a net of an individual woman's schooling. Thus, the latter evidence points to the fact that there is a crucial role for education whether formal or informal in order to improve FP service use. This probably has informed the current national approach to embark on a continuous education and sensitisation in building a more informed client base on reproductive and family planning issues aimed at promoting use among young women, which has led to improvements in national CPR (MOH, 2007).

The gap between ever use and current use of family planning in this study may indicate a discontinuation of use by many early acceptors with time despite increasing awareness. This evidence is also supported by the study of Gizaw & Regassa, (2011). Several factors could account for this gap, including the lack of autonomy, dwindling institutional resources for FP use, poor education reinforced by fears, false myths and misconceptions of side effects and others. Lack of autonomy by young women on FP issues can render covert users ineffective and unsecured in the mist of their "salient use" for FP. This can be confirmed by evidence from other studies (Izugbara, Ibisomi, Ezeh, & Mandara, 2010; Omeje, Oshi, & Oshi, 2011; Ononokpono, Odimegwu, Imasiku, & Adedini, 2013). Poor availability of FP methods and knowledge about use has an effect on length of use. In reality, women's attitudes towards pregnancy prevention, service providers, experience with contraceptive methods and socioeconomic characteristics have a greater influence on use as evidenced by other studies (Adebayo, Gayawan, Ujuju, & Ankomah, 2013; Faye, Niane, & Ba, 2011; Frost & Darroch, 2008). Young mother's inability to have access on demand could possibly be as a result of commodity shortages, unreliable distribution channels and systems as well as service provider's inability to provide different method options for use by young women. These occurrences could, in the long term diminish women's trust within the health delivery system towards meeting their reproductive health needs. It could also be inferred that, the continued existence of many competing demands on women at the household level coupled with distances they need to travel to seek these services at the facility, may be contributory to the gap between ever use and current use for FP.

The study also provides considerable evidence to point out that side effects impact on FP use. Both hormonal and non-hormonal methods are evidenced to reduce FP use pattern over time. Users attributed these effects to their low appreciation and knowledge of side effects of FP use. To improve women's intended use options; there is need for both pre and post counselling services on demand for women. These will help address current side effects resulting from use while reassuring women of better health outcomes for them. Women's views asserted here confirm several other views and desires of women for FP use (Creanga, Gillespie, Karklins, & Tsui, 2011; Loaiza & Blake, 2010; Nalwadda, Mirembe, Byamugisha, & Faxelid, 2010).

Lack of partner and family support for use from the study significantly influences effective use of FP. Family denial or poor support at the family level may be attributable to earlier assertions that large family size is highly regarded in rural northern Ghana, for which reason marriage unions within the study setting; either monogamous or polygamous are often subject to external 'forces'. The lack of support from families and especially partners, often couple with the poor knowledge and illiteracy of most young mothers in these settings to dis-empower them in making independent choices as far as their reproductive health is concerned.

More significantly, ever use of FP services and access on demand for contraceptive use were two significant predictors for FP use in the study. What this really means is that improving current user's needs and concerns could reduce discontinuation of use over time, which would have a positive effect on FP use prospects for young women. Health centres must improve provider attitudes and service quality as well as address health concerns and myths of current users needs to attract new acceptors and continuation of use by current users. Additionally, improving access on demand must be hinged to addressing existing gaps in commodity shortages, improving on available method options and choices for users, improving better clinic or facility delivery at the community level and adopting new models of participatory planning and uptake services for FP interventions at the clinic level.

The cross sectional design employed in this study does not make it imperative for greater generalization and to infer predictability of FP use generally. However, the study covered the entire district and involved all functional health facilities at the time, so that considering its extensiveness, findings could provide useful contextual FP lessons for program planners and other reproductive health workers working under similar contexts in developing countries.

It would also be useful to point out the possibility of recall bias among respondents since mothers were often asked to recall events of their last use of FP services. Additionally, the heterogeneous nature of communities could have made it possible for some mothers to hide critical information from research assistants, in spite of the fact that they were intensively trained to minimize the effects of these attributes on the validity of our study.

5.0 Conclusions

Despite the high awareness levels among young women in this study, many pervasive factors including lack of partner and family support, lack of access on demand, ever experience of side effects, lack of knowledge of where to access services, unsatisfactory services as well as negative attitude of providers were significant self-reported factors for FP use. The study therefore advocates for family planning delivery of services to take a community centred approach to improve access on demand and addressing current users concerns. These will help reverse the continual discontinuation over time of FP use as evidenced in this study.

Targeted national programs on women must include components that build women's self-empowerment to enable them make independent choices for their reproductive use. Gender mainstreaming in local decision making within the health care seeking system could improve women's health seeking behaviours as well address men's denial and misinformed choices on FP. Programs must be delivered based on needs and influencing factors under each community context rather than whole scale top-down driven FP approaches by health staff. Developing systems that ensures a fair assessment of provider service provision for clients may help improve providers' poor relational attitudes and their quality of care. Policy research into unearthing the complexity of community adoption approaches for FP interventions could help support service delivery and improve uptake in poor resource settings.

6.0 Recommendations

The following recommendations are based on the findings of the study intended to provide policy and research interest around improving family planning interventions in poor settings; Firstly, countries with social health Insurance schemes such as Ghana should incorporate broad range of family planning services and products into their minimum packages to serve all population groups. This approach could guarantee universal access to family planning while removing financial constraints often cited by women in other settings to have effect on their use of family planning services. Additionally, innovative actions should be developed at all local levels of the health system to involve men for family planning program activities. Secondly, there is the need for continuous retraining of family planning service providers at various service points on modern trends of providing and addressing client's needs with regards to family planning use. Staff should also be taken through client-provider relationship management to provide them the necessary skills to build good rapport and relationship with clients in order to build client satisfaction and use over time. Lastly, there is the need to integrate contraception programs at the National level with other strategies that promote gender equitable norms and address gender equity. This will go a long way to empower mothers to demand for and be heard with regards to meeting their reproductive health needs at the household levels.

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Background: Diarrheal disease is among the leading causes of death in children younger than 5 years, especially in developing countries. The aim of this study was to investigate the most frequent etiological agents of diarrhea and its associated factors in children younger than 5 years attending the Bengo General Hospital in Angola. Methods: From September 2012 through December 2013, stool samples were collected from 344 children presenting with diarrhea to investigate the presence of viral, bacterial and parasitic agents. Relevant sociodemographic and clinical data were obtained from parents and caregivers. Results: An enteric pathogen was detected in 66.6% of stool samples: *Cryptosporidium* spp. We used thematic analysis to analyze the survey data by using an inductive approach in which we derived codes and themes on the basis of the content from the survey data (16,17). Two trained coders independently coded the comments by using an open coding method in Microsoft Word to establish initial coding themes and subthemes. Next, the 2 coders collectively assessed the themes and subthemes for agreement and created a codebook with definitions for each theme. Finally, the coders used this codebook to reconfirm the coding of the themes and subthemes in qualitative comments. Top. Results. Determinants and Use of Family Planning Among Young Women (18-28 Years) Attending Health Facilities in Garu-Tempene District of Ghana. Martin Amogre Ayanore. 1. Aim: We aim to provide new perspectives of family planning use in a rural setting of Ghana. In the Garu-Tempene district of northern Ghana where this study was conducted, health reports show that despite continual improvement in awareness of FP services in rural areas, use of FP services remain low (GHS, 2008). Top-down approaches to community level FP interventions within the health care delivery system is still prevalent; resulting in low acceptance rates and use due to context specific barriers and determinants driving use. The nature, prevalence and determinants of mental health problems in women during pregnancy and in the year after giving birth have been thoroughly investigated in high-income countries. 1 Systematic reviews have shown that in these settings, about 10% of pregnant women and 13% of those who have given birth experience some type of mental disorder, most commonly depression or anxiety. 3. Social, psychological and biological etiological factors interact, but their relative importance is debated. The perinatal mental health of women living in low- and lower-middle-income countries has only recently become the subject of research, 1 in part because greater priority has been assigned to preventing pregnancy-related deaths. Women having three children reported the highest use of modern contraceptive methods and the lowest was found among the women having no child. Use of modern contraception was low among the women who were the head of the households. Working women, women belonging to richest wealth quintile, women whose husbands reported to be working and women from male headed households were less likely to have unmet need for family planning. Consideration of the family planning and reproductive health needs of women, men, and couples in urban India is increasingly important, given the rapid growth in the number of people living in urban poor settings throughout India.