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STEP UP RESEARCH REPORT
JANUARY 2016

The **STEP UP (Strengthening Evidence for Programming on Unintended Pregnancy) Research Programme Consortium** generates policy-relevant research to promote an evidence-based approach for improving access to family planning and safe abortion. STEP UP focuses its activities in five countries: Bangladesh, Ghana, India, Kenya, and Senegal. STEP UP is coordinated by the Population Council in partnership with the African Population and Health Research Center; the London School of Hygiene and Tropical Medicine; Marie Stopes International; and Partners in Population and Development. STEP UP is funded by UK aid from the UK Government. www.stepup.popcouncil.org

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Contents

Acknowledgements	iv
Executive Summary.....	1
Introduction.....	2
Aims and Objectives	3
Methods.....	3
Study Population	3
Data Collection Methods	4
Findings.....	5
Fertility regulation practices	5
Use of Hormonal Methods and IUDs	9
Use of Condoms	11
Terminating Pregnancies	13
Attitudes to Contraception and Abortion.....	Error! Bookmark not defined.
Hiding Use of Methods.....	18
Choice versus constraints: tactical ways of meeting reproductive needs.....	18
Having immediate access to fertility: protecting my menses	Error! Bookmark not defined.
Acting individually, acting in secrecy: protecting my relationship	22
Being in control, feeling uncertain	26
How methods are talked about	28
The ‘naturalisation’ of Emergency Contraception Pill (ECP): ECP as normative preventive method.....	28
Use of commercial brands to refer to methods	29
Taken-for-grantedness of the rhythm method	30
Use of time and body location to refer to method.....	30
Knowledge gaps.....	31
Learning from friends and via rumours	32
Media	33
Discussion	34
Programmatic Implications	35
References	36

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List of Abbreviations

Demographic and Health Surveys (DHS)

Emergency contraceptive pill (ECP)

Ghana Demographic and Health Survey (GDHS)

Marie Stopes International Ghana (MSIG)

Oral contraceptive pill (OCP)

Total fertility rate (TFR)

Traditional birth attendant (TBA)

Women's Health Study (WHS)

Executive Summary

Background

In Ghana fertility is declining, especially among urban educated women, yet according to the Ghana DHS, use of modern family planning methods fell from 26.0% to 19.4% between 2003 and 2014 in Greater Accra, particularly among better-educated and urban women.

Recent studies have shown strong resistance to hormonal methods, reportedly because of fear of side effects. This study aimed to understand fertility regulation strategies among educated women in Accra using a qualitative, exploratory approach.

Methods

We investigated how urban educated women are successfully controlling their fertility in the face of the declining use of modern methods. We interviewed one-to-one 25 women aged 18-49, and also conducted three group discussions with women of different ages (18-24 years, 25-39 years, and 40-49 years)

Results

We describe the different methods used by our participants, and their views on methods used both by them and by women they know. We found that women very often used calendar methods (rhythm method) to control their fertility. The rhythm method was so common that it often seemed to be taken for granted by our study participants as something all women would use. In addition to the rhythm method, they used other methods in a mosaic. For instance, using withdrawal or condoms during what they perceived to be the 'fertile' time of their menstrual cycle.

Women also commonly reported using emergency contraceptive pills in conjunction with rhythm method, and several participants reported having undergone abortions when contraceptive methods failed.

Discussion

Use of different methods was bound up in women's modern identities and their attempts to meet the demands of modern urban life (get a good education and a professional, well-paid job) and simultaneously fulfil the requirements for a traditional Ghanaian woman, for which fertility is extremely important. The balance women must strike between avoiding pregnancies to enable education and their (socially created/reinforced) desire or even need to have children 'one day' is complicated by relationships with partners and family members who may fear that postponing childbearing or using long-acting contraceptive methods, may lead to infertility. Some women used contraceptive methods secretly to try to manage this complexity, others discontinued or switched methods after being convinced that they were risky in terms of fertility. Women's ability to bear children was widely seen to be crucial for maintaining relationships with male partners/husbands, with infertility cited as a key reason for marriages ending.

Introduction

Ghana is a forerunner of fertility decline in West Africa with total fertility rate falling by over two births per woman since the 1980s. This decline has occurred despite low levels of contraceptive use (Blanc and Grey, 2002). Total fertility rate stands at 4.2 children per woman while contraceptive prevalence stands at 27% for all methods, and 22% for modern methods among currently married women (Ghana Statistical Service, 2015). Although fertility has continued to decline since 2000, (albeit at a slower pace than in the late 1980s and early 1990s), there has been a counter-intuitive reduction in reported use of modern methods between 2003 and 2008, particularly among better-educated and urban women, and it continues to decline between 2003 and 2014 among women living in Greater Accra (ICF Macro, 2010). Indeed, reported use of any method has fallen steeply and steadily among women with secondary or higher schooling since 1993, initially because of a large decline in reported use of periodic abstinence, yet the total fertility rate in this stratum was estimated to have dropped from 2.5 to 2.1 between 2003 and 2008, increasing again to 2.6 in 2014. The 2014 GDHS reports a 30.4% contraceptive prevalence amongst women with secondary and higher education with 18.5% use of modern methods and 11.8% use of traditional methods (Ghana Statistical Service, 2015).

Recent data show injectables and oral contraceptive pills ('pills' hereafter) to be the most commonly used modern methods. About one-third of women with unmet need in 2008 had ever used one or both of these dominant hormonal methods (Machiyama and Cleland, 2013). In view of the high level of past use of hormonal methods among these women, discontinuation because of side effects experienced with hormonal methods is probably a major reason for unmet need. Fear of side effects or health concerns were just as likely to be cited as reasons for non-use among women who had never used a modern method (United Nations Department of Economic and Social Affairs, 2012). The main concern about hormonal methods is irregular menses (United Nations Department of Economic and Social Affairs, 2012). Menstrual abnormalities may affect acceptability of hormonal methods (Cleland et al., 2012, Glasier et al., 2003, Hindin et al., 2014).

According to GDHS 2014, the combined reported prevalence of injectables and pills is only 10.3% among the most educated currently married group, while 15.9% of women with primary school and 13.2% of women with middle school education reported using one of the two methods (Ghana Statistical Service et al., 2009). The most common method reported among the most educated group of women in 2014 was periodic abstinence. Among married women with secondary or higher education, 7% reported using periodic abstinence, 3.4% withdrawal, 3.7% pills, 4.3% implant and 6.6% injectables (Ghana Statistical Service et al., 2009). According to the 2008 GDHS, the second commonly mentioned reason for not using any methods was 'infrequent sex' (25%), after the most common: fear of side effects and health concerns (44%) (Machiyama and Cleland, 2013). Equivalent data were not reported in the 2014 GDHS final report. The study also reports that use of traditional methods were underreported. Similarly, the second wave of the Women's Health Study of Accra in 2008-9 found much higher levels of current use of periodic abstinence than the 2008 GDHS (Adanu et al., 2012); 22.5% of non-menopausal women aged 20 to 54 reported current use of this method, with the highest prevalence among women in the wealthiest households. The next most commonly used methods were condom (14%) and withdrawal (12.5%). Part of the difference between this study and the 2008 GDHS arises from the inclusion of unmarried women in the estimates from Women's Health Study but it also probably reflects the fact that specific probe questions were posed about current use

of abstinence, withdrawal and condoms. A study in Western Ghana also found a positive association between higher education level and traditional method use (Geelhoed et al., 2002). A similar situation has been reported in Cameroon where periodic abstinence is favoured because it conforms to norms of modernity and self-discipline (Johnson-Hanks, 2002). These findings suggest that enduring resistance to hormonal methods may prompt the educated group to deploy periodic abstinence or reduced coital frequency as an alternative means of reducing risk of pregnancy (Machiyama and Cleland, 2013).

Fertility transitions powered to a major extent by use of less effective methods, with abortion as a back-up, have been rare since highly effective methods became available in the 1960s, though Albania is an exception (Falkingham and Gjonca, 2001). Nevertheless it is possible that Ghana may follow this pathway. Better-educated, wealthier, urban couples are typically in the vanguard of change and their behaviour acts as a powerful example to less privileged strata. Ghana is not unique in this positive link between high status and traditional method choice. Both India and Iran, for instance, show a similar pattern (Basu, 2005, Erfani and Yuksel-Kaptanoglu, 2012, International Institute for Population Sciences and Macro International, 2007). Basu (2005) and Gribaldo et al. (2009) found a pattern of 'modern' (highly educated, urban) women using traditional methods and 'traditional' women using modern methods, in India and Italy, respectively. The paradigm of modernity in Accra may also have this apparently counterintuitive pattern.

Aims

This study aims to understand fertility regulation strategies among highly-educated women in Accra.

Specific objectives are:

- To understand strong resistance to modern methods and preference for traditional methods,
- To explore fertility regulation strategies to meet the fertility desires among educated women in order to shed light on how this group has reduced fertility in recent decades.
- To help illuminate how other social strata may follow similar pathways to lower fertility, perhaps mirroring the greater preference for less effective methods among the educated groups.
- To inform future interventions.

Methods

Study population

Fieldwork locations and interviewees were selected in collaboration with Population Council Ghana staff based in Accra, Ghana. We sampled for diversity i.e. attempted to interview as wide a range as possible of educated women in unions (different ages, different locations) to maximise diversity of viewpoints. As this was not a statistical survey, statistical sampling (e.g. simple random sampling) was not used. Participants gave informed written consent to be interviewed and for those interviews to be audio-recorded and transcribed. All participants were between 18 and 49 years old, had at least secondary-level education and lived in Accra. Following previous studies in Ghana, we recruited by approaching women in the settings where they live, work and spend their leisure time (e.g. shopping

shops, work places and universities). We interviewed 25 women individually: 8 aged 18-24, 12 aged 25-39 and 5 aged 40-49. In qualitative studies, there is no 'correct' number of interviewees. However, 20-30 interviews often permit first level 'data saturation' where the key themes are addressed, and new interviews add little extra information. This was a feasible number for this relatively small-scale study. The women we interviewed individually were all either married or in stable unions. We also conducted three group interviews with 8 women each, one with women aged 18-25, one with women 25-39 and one with women aged 40-49, recruited in the same way as for the individual interviews. The age groups were chosen to reflect the fact that women of different ages, who are at different stages in their reproductive lives, may have different views on fertility and family planning (for instance older women may use non-hormonal methods having used hormonal methods when younger). They may also have different views on fertility and 'traditional' vs. 'modern' (however defined) methods. There was no overlap between the women interviewed individually versus in groups. We conducted more individual interviews with women in key reproductive years (25-39) where women were most likely to be using family planning methods, but we also sought a prospective view from the younger age group and a retrospective view, including any current practices from the older group. Group interviews provided an opportunity to access the types of views that women express in public, the shared and conflicting aspects of their health beliefs, and the social processes that shape individual decision-making.

Data collection and analysis

We conducted qualitative, in-depth interviews with women in unions about contraceptive use. Interviews were conducted in private in locations convenient to the interviewees mainly in English (with Twi used occasionally). The interviews were conversational and included discussion of their views on contraception and fertility, including side effects or other reasons for choosing or not choosing particular methods, as well as their own use of contraceptive methods (if any) and personal experiences of advantages and disadvantages of particular methods. As fear of side effects and health concerns is the most commonly mentioned reason for non-use, we attempted to understand people's conceptualisation of fertility regulation, side effects and menstrual disruption from use of hormonal methods, emergency contraception and abortion in relation to their understanding of the body and health. We explored how 'traditional' or 'natural' methods, such as periodic abstinence, prolonged abstinence and withdrawal are conceptualised among educated women in Accra. We asked about partner's involvement in decision-making, friends' use of methods, and about women's views on likely responses to survey questions on the topic.

Interviews were conducted by local researchers including one by GN. CM and AR also conducted one interview each to familiarise themselves with the setting, and understand how the dynamics of the conversation work in practice. CM adapted and piloted the interview topic guide in collaboration with GN and local research assistants to ensure the questions were well understood and contextually appropriate. AR provided follow-up support to GN and the interviewers to guide subsequent interviews. Participants were not paid, but were given a small fixed amount to cover travel costs. Interviewers used a topic guide to orientate the discussion, covering the topic areas mentioned above. We provided training for the interviewers, who were already experienced in interviewing. We discussed the importance of listening and allowing interviewees to speak at their own pace about what they consider to be important, as well as emphasising that interviewers must be non-judgemental, and must not ask leading questions. The interviewers were instructed not to provide

information to the women except in the form of written information about family planning services, which was provided to all participants.

All interviews were audio-recorded and transcribed. We used field notes to record data on locations, body language, and other observations. AR, CM, GN served as note takers during the group interviews. After one-to-one interviews, interviewers completed a semi-structured questionnaire to guide them in their field note-taking after the interview. They recorded impressions such as: Did the interviewee seem comfortable? Nervous? Upset? At which point of the interview and why might this have happened? Did anything unexpected come up during the interview? We also noted any extra information that was not audio-recorded as well as information about the relationship between interviewer and interviewee: How was the interview arranged? Did you already know the interviewee? If so, how? Did you feel comfortable doing the interview? Did you feel any of the questions were difficult to ask?

Data analysis was conducted by CM, AR, GN using QS NVivo for qualitative data analysis via a shared secure server to allow simultaneous analysis in Ghana and the UK. We used an inductive, thematic approach to analysis, in which increasingly abstract themes arising from the data are identified in a process of 'constant comparison', using NVivo to organise the data. We also examined specific cases in depth and where possible paid close attention to specific elements of the narrative (e.g. reported speech, appeals to common sense, use of metaphor).

Findings

Fertility regulation practices

Respondents reported using many contraceptive methods including abstinence, withdrawal and calendar or calendar rhythm, as well as condoms, injectables, pills (both daily oral pills (OCs) and emergency contraceptive pills (ECPs)), herbal remedies and other strategies like "squat and squeeze" or "squirting" (see below) to prevent pregnancies and plan their births. Many women reported using different methods in combination to form what we designate a 'mosaic' of methods.

Combining methods took several forms. Very commonly, women reported using a type of calendar method in combination with withdrawal. Respondents described calendar methods and the process of calculating fertile and safe periods as more "convenient" for women with regular menstrual cycles. The women said they calculated the "fertile" or "unsafe" days by counting seven to ten days from the onset of menstruation (accounts and practices varied between women). The first day of menstruation (or 3rd to 4th day after menstruation) was counted as the first of the "safe" days and the 8th (or up to 11th) day was counted as the first of the "fertile" days. Reporting on when the "fertile period" ended was less common. One woman said that she had been taught to calculate her "fertile period" from the 10th to 16th day even though she reported being aware that "ovulation" (she used this in the same way other women said "fertile or unsafe") was for 48 hours (Quote 1). Another woman reported her safe periods as 4 to 5 days after menstruating and "some days" after "ovulation" (she seemed to use "ovulation" as a synonym for "fertile period"). Respondents explained that they used withdrawal in their "fertile" days (Quote 2, Quote 3), to prevent pregnancy. One woman reported using withdrawal when she was not "safe" in order to prolong the sexual act, saying she and her partner were not necessarily trying to prevent pregnancy with the withdrawal. She and her partner were also using the

calendar method. Although the most common and seemingly widely-accepted combination of calendar and withdrawal methods described was to use withdrawal during 'fertile' periods, at least one woman described using withdrawal also during the 'safe' period to be sure to avoid pregnancy (Quote 1).

He says that you study your menstrual cycle and then, em, from the tenth to the fourteen day after your menses is your ovulation and then he says that to be safe check from the tenth to the sixteenth day. Just to be safe. But I have also read widely on that and I know that normally ovulation happen effectively within 48 hours and after that, it just dwindles down but I think the, the doctor says that simply because your ovulation might not happen exactly on the tenth day. It could happen on the eleventh or the twelfth day you know? Even up to the 14th day so it is better to push it to the 16th day just to be sure.

Quote 1, Interview D, Age 37

Yes. I, I have, I have been using, sometimes in fact if I remember, I have been using, when I, I would use after the menses period, I know that when you finish having your menses, the first seven days is your free, free period for you to have sex and not to get pregnant so that is what I know off as in, it being able of prevent you from getting pregnant...so that the sperm wouldn't, and I am a very fertile type so if I forget my date and I am not careful, I will get pregnant, so there is this, what is the name? They have a name for it. The withdrawal method. I was using the withdrawal method.

Quote 2, Interview N, Age 37

I have three kids and that's basically what I've been managing with for some time [respondent laughs]. Um, just about the time that the man has to ejaculate, when the sperm has to come out, you take it out. And then it's done outside, the ejaculation, yeah, the spill is, is done outside and not in the woman... When you calculate your menstrual date and then you know your safe periods, you know your unsafe periods so you can confidently have sex within these periods and then you know that you are safe so you don't have to get pregnant, yes and then they are days that are high alerts, this is a no go area. Then you don't have sex around that time. I think these are the two I know of.

Quote 3, Interview R, Age 38

Respondents said that fears of getting pregnant during their 'unsafe' period prompt them to combine the calendar method with other methods such as condoms (Quote 4, 5). For instance, one said she used the condom in combination with a calendar method because she was not "comfortable" with using only the calendar method (Quote 5). One woman said that although she sometimes used condoms during her fertile periods, her male partner preferred withdrawal because withdrawal allowed

him to “enjoy” her better (Interview J, Age 39). She explained that during sexual events involving vaginal penetration, she and her partner used withdrawal first and then used a condom later in the same sexual event for subsequent vaginal penetration.

2007 to 2014, I used my menstrual cycle. Yeah. I don’t remember, yeah and then sometimes, he will use a condom when I think it I am not safe.

Quote 4, Interview D, Age 37

That is why I went in for the two. If I was comfortable with only the calendar, I wouldn’t have gone in for the condoms.

Quote 5, Interview H, Age 24

Withdrawal was not only used as a backup for calendar methods. One woman described using withdrawal as an insurance against injectable contraceptive failure (Interview N, Age 37). She described how she worried about risk of pregnancy between the end of one dose and the start of the next, so used withdrawal towards the end of the period until the next dose was administered.

Desire to avoid side effects, uncertainties regarding hormonal methods and fears of making mistakes with “natural” methods were also reasons respondents gave for using three or more methods in a mosaic. Commonly reported combinations were calendar plus withdrawal plus emergency contraceptive pills (ECPs) and rhythm plus withdrawal and/or condoms (Quote 6). Other combinations included injectables with rhythm, and one woman described using the emergency contraceptive pill, rhythm, withdrawal and “squat and squeeze” in combination (Quote 7, Quote 8). Respondents said that they used condoms when they were uncertain about the timing of their partner’s withdrawal. If they had sex in their ‘fertile period’ (or a period they worried was ‘fertile’) and the man had not withdrawn, or they were concerned their partner had not withdrawn in time, they used ECPs.

I guess my methods are working [respondent laughs] looking at the spacing here...um I think we used the condom. Yeah, I mean all three combined. I mean those are tools...um, I think now he buys it more so that we will always have some. We don’t have to run out of stock and then, um, I mean during the whole thing at a point when he thinks that he’s coming, he’d just asks me to wait, let him get it... if I don’t have a condom, if I can’t do withdrawal, I can at least use the calendar. So I can, even also, you know, you can use it as options that you have. I can just pick one of them and use. So I have three of them. So if it happens that I miss out the condom and I run out of stock I can use, either withdrawal or I can use my calendar to calculate it, yeah. So at almost every point in time I do know my cycle... I think during these periods that I had the calendar and the withdrawal] [...] if I’m safe fine then I could do the withdrawal and then I know but if I am not too sure about my timing then, I’ll, I will force for him to use the condom.

Quote 6, Interview R, Age 38

When I was doing that [squat and squeeze], in fact when I started doing that, I did really think I was preventing some pregnancy. I was just thinking I was just doing something, like having, seeing it as fun and I realise...I tried it in two occasions when I thought I wasn't safe and I think it worked for me so, when you go for the injectable, they ask you, they give you a schedule date for you to go back for the injection. When they give you the injection today, they will give you, if you take the one month injection, it supposed to be a month, an exact month like one month exactly you should go for the next injection but when I look at the date, sometimes I forget so may around that time I have had sex and so because of that, then I will have to take some emergency contraceptives so that I wouldn't get pregnant.

Quote 7, Interview N, Age 37

Women who reported using emergency contraception frequently reported using Postinor-2, although not all could remember the name. One woman mentioned using the "N-tablet"¹ as an emergency contraceptive (Interview C, Age 20).

Another method that respondents referred to as "squat and squeeze" or "squirt" strategy was also mentioned as a backup to withdrawal in an attempt to correct a failure to withdraw. One respondent had practised it not only to prevent pregnancy but also as an erotic experimental strategy that could be used in combination with a calendar method when withdrawal failed (Quote 7). Respondents said that immediately after ejaculation in their vaginas, they would squat and squirt the semen out of their bodies, then wash their vulvas. One respondent described a feeling of freedom (Quote 8) when she practised the method after withdrawal failure (a feeling also mentioned by ECP users), but another cautioned that effectiveness of using "squat and squeeze" was not guaranteed, explaining that it depended on depth of penetration during sex (Quote 7).

By pulling it out [laughing]... [What if some gets in before he pulls it out?] I squat and like, I squeeze it out of me. The squirting, what it means is like, you see, you see when you are urinating, the way the urine comes so when you squat and you open your legs then like, you see that when you are urinating, you push, it is like you are pushing some... so when you push like that, it comes with some force. If you do it well, then you finish, you wash inside... like the way it comes out, yeah, you feel like as if something has come out of inside you. You feel free. Yeah after squirting, you feel free.

Quote 8, Interview T, Age 21

¹ The N-tablet mentioned here has also been reported in other studies in Ghana (Opore-Addo et al., 2011). It is a pill containing norethisterone, which interferes with menstruation. Its efficacy, safety and reliability as a contraceptive are unknown. However, its use here is interesting because it presumably links with ideas about there being a very close and direct relationship between menstruation and fertility.

Use of hormonal methods and IUDs

Women reported use of hormonal methods such as the daily oral pill, implants and the injectable. They said that their daily oral pills were a reliable contraceptive method (Quote 9). One participant said she took up the daily oral pill after she had used emergency contraceptive pills because she did not want to take emergency contraceptive pills repeatedly. Some respondents also said they used the daily pill for short periods but stopped after being told the pill was not “good” (Quote 10 & Quote 12), or being told that it caused specific side effects such as weight gain and cervical cancer (Quote 11).

I wouldn't want to be taking Postinor every time we have sex. I want to be taking drugs that I know it will definitely protect me from having babies and getting pregnant.

Quote 9, Interview V, Age 22

Um, I was using the secure. Yes. The Secure? I used it for about... let's say about three months then I stopped. I stopped the Secure because I learnt it wasn't... people were saying it not good and all that so I stopped it.

Quote 10, Interview E, Age 31

I was getting some flashes [hot flashes, when taking daily pill], so she [grandmother] was like what am I doing to myself now and so I had to tell her that this is what I was doing. So she, I didn't know whether she was scaring me, so she told me [about a cousin who was taking daily pills and had cervical cancer] and I decided to stop taking it. That was the only thing she said. She gave me some examples. She gave me examples about some family and friends at, in, at other places that she knew of who were taking the oral contraceptive and have later gotten cervical cancer so because of that, it scared me and I decided not to take it.

Quote 11, Interview N, Age 37

I just used the pill for like some two months. I went in for the pills because I wanted to try that one too. And I tried it and I was told, well I didn't have any side effect using the pills to but I was told you get the side effect later. That is why I stopped.

Quote 12, Interview F, Age 22

All three types of available injectable (one-month, two-month and three-month injectables) were reported. Amenorrhoea and changes in menstrual flow were the most commonly reported reasons respondents said they stopped using injectables. Although they said they trusted the method as an effective contraceptive, they also expressed concerns about side effects including weight gain, health concerns such as high blood pressure (Quote 13), as well as fear of missing their repeat dose (Quote 14). Just as women reported using withdrawal to manage perceived breaks in effectiveness between

doses of injectables, one woman reported using ECPs to manage the perceived break in effectiveness between doses of injectables (Quote 14).

I used it twice [three-month]. From two months to six-month...yes, I stopped. My menses have stopped coming. I don't feel good about it, why? Because it makes me fat and then since I started, I have stopped menstruating although it is not making me pregnant...I am just growing fat, fat, fat. I have got BP, I wasn't having BP before and now I have BP and I feel joint pains.

Quote 13, Interview I, Age 31

I have tried the one-month, the two-month, the three-month...the one-month injection, I did the one month injection. I did the two-month. It didn't work for me. If I say it didn't work for me, I mean I realise my menses was not really flowing like how it is supposed to flow. I started taking the injectable after my second child... em, I was taking them, you see when you go for the injectables, they ask you, they give you a schedule date for you to go back for the injection. When they give you the injection today, they will give you, if you take the one month injection, it supposed to be a month, an exact month like one month exactly you should go for the next injection but when I look at the date, sometimes I forget so maybe around that time I have had sex and so because of that, then I will have to take some emergency contraceptives so that I wouldn't get pregnant.

Quote 14, Interview N, Age 37

One woman reported using implants (Interview N, Age 37). She explained that she took them up after she experienced irregularities with her menstrual cycle after her first child was born. She said she experienced amenorrhea and “protruding” stomach size which she was not “comfortable” about. This, along with frequent urination stopped her using the method. She reported feeling uneasy because she experienced amenorrhoea for an entire year and explained that this meant that menstrual blood was being stored in her body, which could lead to health problems.

Some respondents also said they used IUDs between births. They explained that they took up the IUD because they were not comfortable with the amenorrhea that they experienced with implants or chose it after receiving counselling on various methods by health workers at the family planning centres (Quote 15). One respondent, who said she had wanted to use an IUD, told us that she had been advised by the health workers that she could not because she had had a caesarean section (Quote 17). Another respondent also reported that she stopped using the IUD because of fears that the device might affect her fertility in future (Quote 16).

Yes it was, I think after that, that I went for the IUD... And then after some years, I think two years or so. ...And then I stopped... Because I wanted to have the child...When I went to the hos-... er... Family Planning centre, they mentioned, they showed me a few of the things and then also they talked to, to me about it so they asked me, they asked me which one I preferred, and I said I preferred the IUD

because I thought that was [pause] that was the best to me... and it wasn't giving me side effects. Any side effects like bleeding like, bleeding as other people have been, were complaining... I stopped because I had fibroid. And I went for a hysterectomy. It's because of, uh, the surgery.

Quote 15, Interview U, Age 54

When I had my first child. I went in for an IUD and then I was working with an elder, elderly woman and she told me, oh, she used an IUD and after that she never gave birth again after the first child. So I was, I was just afraid, I was wondering why it happened. So me after, even the IUD I used, I removed it myself and since then [short laugh from room] I have never used any contraceptive me-method like, um, aside maybe the abstinence, maybe withdrawal or and all those things.

Quote 16, Focus group, Age 25-49

My menses didn't come for a whole year [after using implants] and I didn't really feel comfortable about that, so I went, I decided to go for the copper T and I was told that because of the caesarean section, I can't use the copper T.

Quote 17, Interview N, Age 37

Use of condoms

Although the female condom was mentioned, most respondents reported using male condoms. Women said they asked male partners to use male condoms if they did not trust the man (Quote 19, Quote 20), to avoid sexually transmitted infections and HIV, and to prevent pregnancy. Respondents said they used male condoms at the beginning of a relationship (Quote 18) or, in distance relationships (Quote 20), in first sexual experiences, and for sex outside their relationships. Women who reported using condoms within marriage said that they used them for pregnancy prevention (Quote 25) and explained that although their partners did not enjoy using them (Quote 18), male condoms played a dual role in preventing pregnancy and protecting against sexually transmitted infections and HIV/AIDS.

[Condom use] was during my first sex, it's not always [...] The condom? He said he didn't enjoy the sex. He didn't like it...but before, when we started the relationship we were using condoms... To prevent pregnancy...mm because of the diseases, because maybe you are going out with the person, you don't know the person, your first time you want to have sex [...] As for the posteno-2 [Postinor-2] is for the pregnancy, and the Secure too, for the pregnancy, but the condom to prevent... Um the condom, I will say the both sides, both the pregnancy and the diseases.

Quote 18, Interview E, Age 31

I like condom [...] It prevents a lot of diseases and then it prevents pregnancy as well so why not? [Laughs] [...] I normally let them do the test [HIV test], if you do the test and you're HIV free, I would go for skin to skin because I can trust you, but if you are telling me oh why should I go and do HIV, why would you think I would give you it all...yeah.

Quote 19, Interview V, Age 22

It was once a while because he wasn't in the country so when he comes on vacation. That is when I see him, to use it because of diseases... Not that perfect but it's okay. I mean you know you are safe from diseases because you don't trust the person that you doing it with. You don't know what he is doing behind you so you just have to prevent yourself. And moreover, not to contract one disease to another person. It was once a while because he wasn't in the country, so when he comes on vacation. That is when I see him, to use it because of diseases.

Quote 20, Interview A, Age 30

That was the early part of our marriage, which was in, before we even had our first child. The condom and then the spermicides. Like I told you earlier, I didn't use it consistently. I used it only once or twice.

Quote 25, Interview L, Age 36

Some respondents reported using condoms as a back-up alongside another, regular, method. They said that during "unsafe" periods, they used a condom (Quote 26). Respondents also acknowledge the dual protection that condoms offer in preventing pregnancy and sexually transmitted diseases. A respondent explained that although she used the calendar method, withdrawal and condoms, she preferred the condom because she did not want to be stressed out including calculating her safe periods since the condom could "do [...] the job". She also explained that with the condoms, she enjoyed her intimacy because her partner stayed next to her rather than moving away to ejaculate. She said that her partner initially had reservations about using condoms but started using them only at the last minute and preferred that method to wearing them throughout sex (Quote 27).

2007 to 2014, I used my menstrual cycle. Yeah. I don't remember, yeah, and then sometimes, he will use a condom when I think it's... I am not safe. And then along the line I got married. When I got married, for the first half of the year, I was managing a project and didn't want to get pregnant so I was still using my menstrual cycle

but my husband never used a condom. Yeah (laughs) I even think that they are the first you think of as soon as you think of you know preventing pregnancy because, em, its really received the best media coverage you can ever think of because equally of HIV AIDs, you know?

Quote 26, Interview D, Age 37

Sometimes I think the pleasure of it to still have your partner with you and eh because the withdrawal he has to move away to take the semen somewhere else, yes. So at least with the condom you, I still have him around, you can still have your fun and then you don't have any problem, yeah.... yeah, you can enjoy your intimacy, yeah... this is about having a good felling[...] He wouldn't want to wear it earlier; he will wait for some time before he would wear it. I don't have a problem with it anyway... He thinks that it slows him down when he wears it from the beginning so he would want to wait to really reach that point before he wears it... [...] initially he wasn't... yeah from that time, it wasn't a priority, like he wouldn't, he wasn't too keen on using it but then after seeing how it has helped us, he is so much for it, yeah... [...] I mean the condom can do all the job so why put yourself through any more stress, so... So um, I mean, once I knew I had the condom I didn't have any problem with, thinking of calculating or you know?...as in all the things that I didn't want, the condom will spare me that, not having... so I don't have to have kids when I don't want it. I can still have my fun, [...] if I'm safe, fine, then I could do the withdrawal and then I know but if I am not too sure about my timing then I'll... I will force for him to use the condom.

Quote 27, Interview R, Age 38

Terminating pregnancies

Many respondents told us – incorrectly -- that abortion is illegal in Ghana, and recounted tales of women ingesting ground glass and different types of drinks to terminate pregnancies. Respondents recounted personal experiences in terminating pregnancies saying they wanted to end pregnancies because they were unplanned, because they were in school or too young, or because the pregnancy was too soon after the birth of a child.

Among the interviewees, most reported self-induced abortions using Cytotec (misoprostol), which is easily available. Women said that they got information about the method from their friends (Quote 31) and their partner (Quote 29) and reported using it in different ways. One respondent reported inserting three tablets in her vagina and swallowing one (Quote 29) and another woman reported swallowing two and inserting two (Quote 30). Abortions induced with Cytotec were not always successful. One woman said she used Cytotec with a “blood tonic” (a liquid that is taken to produce more blood cells commonly used when a person has anaemia) for her first successful self-induced abortion, but the same method did not work a second time and the termination was completed at the hospital (Quote 28). Women reported experiencing severe pain, even being hospitalised for the pain after using Cytotec (Quote 29, Quote 30).

Em, em Cytotec... and blood tonic... The Cytotec, it wasn't coming, so I took the blood tonic. Then it came. Then the second one, I took the Cytotec but it didn't work, the blood tonic didn't work. Oh yes, taking medicine to abort it and then going to the hospital to complete it with the blood tonic. That time I had no child. Yes, so the second one, I took the Cytotec, the blood tonic, but it didn't work.

Quote 28, Interview I, Age 31

I aborted it. Yes, by taking medicine. A medicine called Cytotec. But it was very dangerous [...] a friend of [my boyfriend] told him that we should go and buy Cytotec. Yeah, so when I bought it, they told me that I should insert three, three tablets and drink one. Yeah, so within em, twenty four hours, everything will come out. So, I took one of it and insert three, so... but the pains, the pains were too much for me so, I end up at the hospital. I end up at the hospital and hmm... Oh, it was able to end the pregnancy, but the pains. I was feeling.... Yeah, the pains was too much for me to bear.

Quote 29. Interview T, Age 21

The thing is that I was in school, I wasn't ready to give birth, so it was a month old I think three weeks or so that's when I realised and I had to take a pill called Cytotec [...] Well yeah, there were four tablets and I was told to insert two and take in... swallow two. Um I think like after two days I just saw like a drop of blood, I was thinking it was going to work faster, and they were telling me I should jump and run and do this and do that I was frustrated because I had exams to write [...] so [I was] going around the park jumping and he was there with me throughout the period, so it was just stressful for him [...] but after some time, I think after like, um, four days or more that's when the bleeding started and it was a whole lot of blood, like I lost a lot of blood and um I couldn't sit till. I think I bleed for a week [...] the pain was just terrible.

Quote 30, Interview V, Age 22

I was too young so I had to do something about it... I had to take a certain drug... Push it out [...] A friend (told me about Cytotec) [laughing] no I took it on my own. Um, a friend got it for me.

Quote 31, Interview X, Age 23

Another method that was reported was the use of herbal medications. One woman reported having experienced this directly (Quote 32). She reported not being successful in terminating the pregnancy and experiencing severe pains.

I have had to go through some abortion recently. I don't know why God made me this fertile [...] There are these people who sell herbal stuff. Some looks greenish, it looks like herbal soap, it is round. One

time I tried it. I think I tried it once and what I went through, that is why I decided to go to the clinic anytime I should get pregnant. It's... the soap is round. It is soapy, you do warm water and then you soak it and we have this thing that we use to pump. [...] So you do the warm water, you put the soap inside and then it melts and then you use the enema [...] It was the one I tried [...] It did not work for me.

Quote 32, Interview N, Age 37

Respondents also reported friends' experiences, saying that their friends used Cytotec, drank herbal mixtures, and concoctions usually involving sugar, Nescafé (instant coffee), and alcohol. They recounted how their friends experienced severe pains when they used some of these methods (33) and frequently reported that their friends had to be rushed to the hospital for the termination to be completed (33).

I even took a colleague to the hospital... Yeah she tried er... what's the name of... Cytotec [...] She was having severe pains so we were scared and we had to rush her to the hospital. You know? Oh she was feeling very severe pains, and she was weak, she was bleeding too, so we had to send her.

Quote 33, Interview E, Age 31

Women reported going to hospitals and clinics (public and private) for medical and surgical abortion (Quote 35). One woman, who had been in school at the time, reported receiving unfriendly unhelpful care (Quote 34), describing the hospital as "like a sneak-out place". Another woman who accessed abortion services at a private facility explains that she received counselling on both having surgical (at the "theatre") and medical abortion. She said she was encouraged to choose medical abortion because she was "young" and it was "risky" for her to go through surgery (Quote 36).

I got pregnant as a teenage girl so what I did was to have a D&C [surgical procedure] to it without seeking parental guidance and stuff. I spoke to my boyfriend who is currently my husband then so we arranged to go to the hospital and have the D&C done over there. It was quite painful and the doctor wasn't friendly so I decided not to go through that process again because when I got there, I mean, there was no counselling, nothing. They just... it's like a sneak-out place. Even though the hospital is big, it wasn't friendly. You cannot even shout when you are in pain and it's very painful so I vowed myself not to go into that again...

Quote 34, Interview A, Age 30

I terminated it. I went to the clinic and then I got it aborted. I went to the hospital, and it was aborted. Is it the extraction? Or... I don't know but I think it's the extraction method.

Quote 35, Interview L, Age 36

At the age of twenty years... Marie.... yes, Marie Stopes International that is where I went. Because she told me it would be safe and they have the drugs that would be good for me and not harm me in any way and that's where I went. Okay they showed me two methods, one, em, like to go in the theatre for them to take the thing out, and one to take medicine and have it... but the person there told me, she would think the medicine would be better for me than going to the theatre because am very young and I can... like, it's risky for me to go and take it through the theatre. So she advised me and I went for the drugs.

Quote 36, Interview M, Age 22

Some women reported multiple personal experiences of abortion. One woman reported having experienced at least five abortions in her life (Quote 37). The first two were surgical abortions in hospital after failure of the withdrawal method. She reported that after the two abortions, she used oral contraceptives for birth control but stopped using them after her grandmother told her she might be at risk of "cervical cancer" from using oral contraceptives. She said her last two abortions were terminated with medication abortion pills after she had tried Norplant, injectables and the "squat and squeeze" methods.

I had two abortions with [first boyfriend]. That one I didn't go through any anaesthesia. We didn't have any idea of what to do apart from going to the hospital [...] I was using the withdrawal method [...] The other ones was Meridian at TDC [...] I tried the daily pills after I have had the two abortions with [husband] [...] I had three abortions with him before we got married [...] I did it [Norplant] for just a year. When I realised I wasn't having my menses, I... and though I was advised that sometimes it wouldn't come, I still didn't feel comfortable and... for the last two, it was medication abortion that I took. [...] I was taking them [injectables]. You see when you go for the injectables, they ask you, they give you a schedule date for you to go back for the injection, but when I look at the date, sometimes I forget so may around that time I have had sex and so because of that, then I will have to take some emergency contraceptives so that I wouldn't get pregnant.

Quote 37, Interview N, Age 37

Another women reported terminating two pregnancies using Cytotec. For the first pregnancy, she added a blood tonic, which in her view assisted in the successful termination. For the second pregnancy, the Cytotec did not work and the termination was completed at the hospital.

During the study, many references were made to unsafe abortion methods reportedly used by 'other' women. In particular, we were repeatedly told about supposedly popular abortion methods involving drinks: ground glass (added to drinks), Nescafé, sugar, Guinness (Quote 38, Quote 39). They also reported the use of "untrained TBAs" and "quack" doctors including drug peddlers, chemical shop sellers, herbal medicines and "getting beaten" to terminate pregnancies. While a woman reported that such methods were used mostly by "the uneducated/ illiterate ones", others reported that these were

done when they were “kids” or “in the early days [past] while others reported these methods being utilised by “young people” or adolescents.

I don't know much about that but I know that, there are some women when they are pregnant and they want to abort it in the house, some people use em Nescafe, sugar, or Guinness. They mix those things and then they take in. Aha, and sometimes if you are not lucky, it can send you to your grave. [laughs]

Quote 38, Interview S, Age 47

There are a lot of concoction especially for the adolescents. Some use... some use blue, the blue that we use to wash, to dye, to whiten our white clothing, to brighten them. Some use Guinness, some use, even some use cassava sticks, whole a lot... They mix with sugar, sugar, about a lot of sugar and then they mix with the blue and then they drink it. A whole lot. Some mix Guinness, add a lot of paracetamol, a whole lot... Oh that one, especially those who know how to deliver, the untrained TBAs [traditional birth attendants] and the rest? [...] We have many quack doctors who are using a lot of drugs just to cause... You know these drug peddlers and those who sell in buses? you know they will tell you that this drug it cure diseases A.B.C but if you are pregnant don't use it, aha, and so some may go in for such herbal medicines, because when, especially the teenagers when they are pregnant, you see they, they, they don't think straight, because they think at all cost it must come out so...

Quote 39, Interview G, Age 44

Respondents said that the main reason people opted for these other methods was because of the financial cost of accessing safe abortion services in the clinics and hospitals (Quote 40). Another respondent also said that the fear of developing complications after accessing abortion services in the hospitals such as prolonged bleeding and severe pain (she said she had experienced this herself) (Quote 41). One participant also indicated that particularly with very young women, the need to terminate the pregnancy is paramount because they are not “thinking straight”. She added that adolescents access information about abortion from their peers and friends.

It's only when they don't have money that you find them going to these herbal medicine sellers to get em, but you hardly find, this time around, anybody at all goes to, would want to go to a better place to have the abortion. I think these things, like the herbal medicines are happening in the villages but here in Accra most of the time, they go to...

Quote 40, Interview N, Age 37

I am also thinking that because of the complications that come with the clinical methods. Like I was saying, I bleed and I was experiencing some pains and all that, with that one [concoction], it comes and you are okay. There are no other complications involved

Quote 41, Interview L, Age 36

Barriers to use of family planning methods

Respondents reported hidden use of methods for abortion. They said that even though abortion is “not legal”, some hospitals provide abortion service but that because women are not “proud” of having abortion in Ghana, “people” have to watch where they go for such services (Quote 42). One woman also said that women avoid going to clinics and hospitals for abortion services because of the stigma attached to entering places that people know provide such services.

I know it’s not legal but yes some hospitals do and [laughs] you know? In some of the hospitals, you have doctors that are just not in favour of that so people watch where they go. Is not something people are proud of doing in Ghana so it is more like...

Quote 42, Interview H, Age 24

Some women reported religion as a major barrier to contraception and abortion services. They said that most Christians are allowed to practise natural methods only because all other methods are regarded as “sins” (Quote 43). A woman reported that some Christian women are opposed to withdrawal because it is regarded as a “sin” against God. Another woman reported that because of her doctor’s and her Christian faith, they did not “encourage” a young woman who wanted to access abortion services because they regarded abortion as “killing” a person. Another respondent said because of her Christian faith, she would “push” for young people to be taught about sex but “encouraged” to abstain from sex until they are very “sure” of their partners.

Apart from the natural methods, the other methods most churches preach against it that it’s a sin.

Quote 43, Interview I, Age 31

One woman said that abstinence as a means of contraception “applies” to “young people” but is not applicable to “older people” (Quote 44).

That one [abstinence] applies usually to the young people [hum of agreement], maybe they don’t want to go in for it because they don’t want to get pregnant...But older people you don’t, you can’t say that you won’t [short laugh].

Quote 44, Interview U, Age 54

Choice versus constraints: tactical ways of meeting reproductive needs

There is a clear tension in participants’ attempts to meet their reproductive needs between, on the one hand, exercising autonomy and choice and on the other, being constrained by the socio-cultural demands on women (e.g. childbearing expectations). This tension indicates how educated women can occupy a somewhat liminal position in a modern but still patriarchal society where women encounter multiple and somehow competing expectations including education, responsibility to husbands’ desires and social value attributed to women on the basis of their fertility. This tension was

clearly played out in participants' deployment of tactical ways of meeting their reproductive needs (e.g. secrecy, acting individually). These tactics are not only ways of addressing reproductive needs but also mechanisms for protecting fertility (Quote 47) and relationship/marriage (Quote 53); both important sources of social status. Their function therefore is to ultimately protect their social self.

Having immediate access to their fertility (i.e. being able to conceive as soon as one stops using method) was one of the most common reasons given for why women would avoid hormonal methods (Quote 46, Quote 47). Having immediate access to fertility appears to be to do with having control over one's body (e.g. having reproductive control), having control over one's life (i.e. meeting career, education and childbearing expectations simultaneously) (Quote 45, Quote 55).

Participants wanted to have immediate access to fertility. They had delayed or were delaying first pregnancy to complete various levels of education and talked about education as "wasting" one's fertile life (Quote 45, Quote 46). Participants wanted to be in control of their life in every sense, both in terms of fulfilling education aspirations as well as childbearing expectations. Reports of not feeling ready for first pregnancy or another pregnancy were linked to participants wanting to reach a certain level of education or finding the right work-life balance.

Education also shifts your marriage life backward [...] if I hadn't gone back to school after the 19, maybe by 21 or 22, I would have been married [...] so fifteen years running I was just in school, school, school, so yeah, so I think all these things affect you know? And, em, they shift your life backward rather.

Quote 45, Interviewee D, Age 37

R: when somebody is too educated before marriage, it means that you delay. If you want to really go high in the education before getting married, you delay, and so part of your fertility period is already gone...

R: Wasted. [hum of agreement]

[...]

R: Yes. The rest that is remaining you don't want to take chances that is how come some will never go for hormonals because even when I want it for two years and after two years I have to wait for, about six months to one year before I can finally get pregnant, then it is going to worry me because I have about five years, I don't know what will happen from five years. So I have to catch up. So it means that if I have to do anything I might go for either condom or something that won't take that long, that is, maybe put IUD there and one, eh, one year or so I just take it off and then start preparing for another baby.

[...]

R: I am thirty and now, I'm just about completing my [Bachelor degree]. So, and I'll like to do my masters and within two years' time so I've planned that maybe within two years I will have two and afterwards I have my masters and maybe a pension baby [joking, meaning when she is older] or if not then fine. I know I have two.

Quote 46 Focus group, Age 25-49

Yet having immediate access to fertility is also linked to the need to protect marriage and social status given to women on the basis of their reproductive ability (Quote 48, Quote 50, Quote 55).

With men there's this assumption that he can always, you know we are Africans and Africans love to have children but, um, the man thinks that should something happen to some of his kids. Men have a longer span of having kids so he can always have kids again and women are not so concerned because a women who may have a good spacing of children, let's say even if you have like four kids and you space them about three four years, by the time you decide to have the last one or the fourth one, you'll be around... Let's say you start in your twenties by then you'll be around your forties and that's more like nearing your menopause so what's the big deal about having kids again [respondent laughs]. [...] The women wouldn't mind but the men would have a strong problem with... If they think that, I mean somehow they could end up wanting more children some day with another woman and there will be a problem, yes.

Quote 48, Interview R, Age 38

The narrative about having immediate access to fertility was clearly linked to participants' concerns about the biomedical effects of hormonal methods (Quote 47). Hormonal methods were seen as potential barriers to having control over one's fertility and exercising choice over the timing for childbearing. Participant E below (Quote 47) explains how she stopped taking the daily pill because it would stop her from having children when she wanted.

Participants' concerns about modern hormonal methods (often referred to as "drugs" or "artificial" methods) were not always explicitly articulated as biomedical concerns. Instead, participants often talked about the methods affecting their menstrual cycle (making menses irregular, stopping menses, affecting the 'normal' flow of blood) (Quote 49). In the course of the interview, it was evident that participants constructed 'normal' menses as a signifier of fertility. Participants shared normative ideas about how menses should be (e.g. number of days menses should last, and quantity of blood that should flow) (Quote 50) and aspired to having 'normal' menses. These normative ideas and aspirations clearly mediated their attitudes towards modern hormonal methods and the fertility regulation practices they reported.

I stopped the Secure [daily pill] because I learnt it wasn't, people were saying it not good and all that so I stopped it. [...] They were saying if you are taking it, it would cease you from giving birth when you want it. That was the only thing that scared me.

Quote 47, Interview E, Age 31

When I take it [daily pill], because my menses changed, the time changed and it doesn't flow as it used to. [...] Because of the changing in my menses. That's why I stopped [daily pill].

Quote 49, Interviewee E, Age 31

Participants talked about the importance of evidencing 'normal' menses. One participant (Interviewee O, Age 26) only used 'natural' methods (calendar, withdrawal and abstinence) because she had concerns about how hormonal methods affected menses. At the interview she talked about some of the stories she had heard regarding the side effects of hormonal methods (referred to as "artificial family planning"). Participant K below (Quote 50) asserts the need to educate young women on how to manage their menses and makes a connection between 'stopping' the flow of menstrual blood and becoming infertile. She draws on normative ideas regarding the common conception of menses (e.g. as a way the body becomes clean) and how menses should be managed (the importance of letting blood flow). Implicit in this account is the view of menses as a signifier of fertility.

These girls of today, they say they take milk to clean their under [vulva] before they just go and do it [have sex] but I think it is not the best because the dirt is supposed to come out so I don't know why they have to go and push it back inside again. [...] They will put it [milk or beer] in cotton and then put it, they will insert it [...] I told them that is not the best because that thing [menstrual blood] is supposed to come out. That is the dirt in you. [...] My advice is you have to meet the youth. Organise a seminar or a workshop for them. You talk to them about this kind of let the period come by itself by finishing the seven days. How they stop it [by having sex], it will create problems for them. It can even block their wombs. It can give them fibroid. It can even kill them because you don't know, while you are pushing this thing, you don't know the infection that it is going to give you. And in future if you don't give birth, then you say your grandmother is a witch, your mother is a witch [...] you should go and tell them, they will organise a seminar or a workshop and tell them the importance of the blood flowing."

Quote 50, Interview K, Age 48

Having immediate access to fertility and evidencing 'normal menses' are important ways of feeling one is in control and able to fulfil childbearing responsibilities when one chooses to do so (i.e. one is able to conform to socio-cultural norms about womanhood). It is also a mechanism for protecting against the prospect of infertility and (by being infertile) failing in marriage (Quote 46). Within this context of fear, medical abortion and the use of ECP in combination with 'natural' methods (calendar and withdrawal) are seen as ways of exercising choice and some kind of reproductive control (Quote

54). Our respondents told us that even women who had already reached their desired family size and who might be close to menopause, would want to have access to their fertility, even if their husband also wanted no more births (Quote 52).

Not only even with the hormonal, because I remember, er, um, when I had my first child. I went in for an IUD and then I was working with an elder-elderly woman and she told me she used an IUD and after that she never gave birth again after the first child. So I was, I was just afraid, I was wondering why it happened. So me after, even the IUD I used, I removed it myself and since then [short laugh from room] I have never used any contraceptive method like, um, aside maybe the abstinence, maybe withdrawal or, and all those things.

Quote 51, Focus group, Age 25-49

R: they are also afraid that what if I do it, my children, they're small they're not grown and the unfortunate happens. One dies or something that means I have to give birth to replace. Ghanaian woman think, thinking so if they do that one it means they are not going to give birth again. So, they don't want to do it

R: I remember when I had my third child it was through CS [Caesarean section]. First, second and third so, like there was a suggestion that I should BTL [Bilateral Tubal Ligation] but, I was so much afraid, I don't know the outcome of the pregnancy to the end, and the outcome of the labour. After that during the course of their growing up you don't know what will happen so. So once I am still young then there is no need for the BTL.

Quote 52, Focus group, Age 25-49

Biomedical concerns, fears of infertility, delayed pregnancies and infidelity/being abandoned are instigated by others and socially reproduced through rumours circulating within participants' social environment (Quote 51, Quote 60). This constitutes the social context where women form attitudes and make decisions about use of contraceptive methods.

Acting individually, protecting my relationship

Acting individually to prevent pregnancy and keeping others unaware of this (e.g. through secrecy) was a common narrative across participants. Acting individually and in secrecy is to an extent about exercising choice and control but at a deeper level it is also a tactical way to meet individual reproductive desires whilst protecting one's relationship (Quote 53).

I: Why is it that important [keeping the method secret from her husband]?

R1: Oh, yeah, some people will not want their partners to know that they are on any, em...

R2: Birth control methods.

R1: ...Birth control measures because they haven't agreed on like...

R3: The number of kids.

R1: ...The number of kids or when should they, when they would want have their next child or not. So if you are taking the tablets, then once you haven't agreed on it, it will start bringing, eh, confrontations and things to the house. But if you have agreed and you all know that, yeah, for now we don't want, and then if you are taking the medication pill then there wouldn't be any problem. Once you haven't agreed, the person doesn't know and then you go and bring it to the house there will be fight.

R: Also most of the men, they know a lot about this, eh, contraceptives and the side effects so they don't really want their wives to go and take those, eh, drugs for the fear of the future.

Quote 53, Focus group, Age 25-49

Acting individually is partly a response to lack of dialogue and agreement between participants and their partners regarding reproductive desires (e.g. number of children, when to have children) but it is also a way of abiding by socio-cultural and religious norms (e.g. patriarchal values, abstinence before marriage, Quote 54). Participants reported their partners openly objected to particular preventive methods that participants trusted more. Participants often said they complied or pretended to comply (through secrecy) with partners' desires with respect to contraceptive methods and reproduction (Quote 54, Quote 55, Quote 53). Some women said they stopped using methods they trusted the most because their partners objected (Quote 54). Within this context, secrecy or silence, then, become tactics used to exert a degree of reproductive control. Participants did not talk to husbands about contraceptive use (silence) and deployed deliberate tactics to keep their husbands unaware of the use of method (secrecy) (Quote 58, Quote 54, Quote 59).

R: I used the condom first [...] But, because the condom I didn't use it often, so I decided to use the Secure [daily oral pill].

I: So why did you start using the Secure?

R: Because my partner doesn't always agree to use the condom, and it burst at times that's why I was using the Secure.

I: Was he aware you were using the Secure [daily pill]?

R: No, no, he wasn't aware.

I: Why didn't you tell him?

R: (laughs) No, no he wouldn't agree, because he was saying that there was some side effects so...

I: But why did you start using the Postinor-2 [ECP]?

R: I stopped using the Secure, and when I see that I have sex that is not, am not safe that's when I use the Postinor-2. [...]

I: What do you like about the condom?

R: Um the condom, I will say the both sides, both the pregnancy and the diseases. Yes, both the pregnancy and the disease [...]

I: But was he aware of the Postinor-2?

R: No, no, no

I: He was not aware?

R: No, no, no that one I bought it myself."

Quote 54, Interview E, Age 31

He has married you because of pregnancy you know? Why would you think that at the, at the tail end of having sex, he should pull out because you will get pregnant. So I think that one and even with where I am coming from, you can't even mention it [withdrawal] to your husband so it is the others that the woman will be exposed to. You can't tell him that I don't want to get pregnant so when you are about to come out pull out, no.

Quote 55, Interview P, Age 35

R: (silence) at first I used to buy the contraceptives

I: which ones?

R: Em... the Postinor-2 [ECP] and the N-tablet, but it was not (hisses) um, my partner said he does not like that. He doesn't want me to take in those pills so he said we should go in for that safe period [rhythm method]"

Quote 56, Interview C, Age 20

I dislike [withdrawal]. There is the tendency that you might make a mistake [respondent laughs]. A slight mistake, you know, so I am particular about that. That is the reason why um if I'm safe fine then I could do the withdrawal and then I know but if I am not too sure about my timing then, I'll, I will force for him to use the condom. [...] I think my husband even though he is okay with it wouldn't want to put it [the condom] on early. [...] The condom can do all the job so why put yourself through any more stress [...] once I knew I had the condom I didn't have any problem with, thinking of calculating or you know? [...] All the things that I didn't want, the condom will spare me that, not having... So I don't have to have kids when I don't want it. I can still have my fun, you know, still have sex and be okay [...] You

know, having to, whilst having sex you still have to think about the withdrawal and all those things [...] It [the condom] would take care of everything.

Quote 57, Interview R, Age 38

There is a tension in participants' accounts between wanting to exercise ownership over reproductive choices and having to conform to social norms and expectations on women (e.g. marriage as duty, conforming to partner's desires regarding reproductive and contraceptive choices, childbearing) (Quote 64). Participants talked about being aware of the socio-cultural and religious norms regarding modern contraceptive use and premarital sex (Quote 60). Some reported abiding by these norms (by abstaining until marriage). One focus group participant told us how someone she knew was tactically using secrecy in combination with instrumental use of religious beliefs (God as the one who ordains children) to navigate through her husband's questioning and to meet her personal reproductive goals (Quote 59).

R1: I know one nurse she's having only a child, one child. But the husband wants her to have more and she... she wants some space between the children so she says 'no'. But her husband doesn't know she is having her family planning method. She is... ah... she is working at the family planning unit. So she is doing it herself and when she goes home and the husband asks – 'Eii, this child [speaks in twi] deɛ [here] the space [between pregnancies] is... is getting too much'. She says: 'Oh, [speaks in twi] children deɛ [Translation – for children] it's God who gives.' [Laughter from room]. 'At the right time, you have another one, but for now if God hasn't given me any child, I can't conceive'. So, so that's what she's telling the husband meanwhile she is having a family planning method right at her facility. And we used to laugh about it that 'ei you this boy-wo. The day your husband catches you... oh, you'll never know'.

Quote 59, Focus group, Age 24-49

If I wasn't married and I was talking about it I wouldn't be feeling comfortable because I wasn't married and society will see you as you are not the right candidate to be talking about some of these things because you are not married, you know? And all of that. Yes, it would not be easy for an unmarried person talk about some of these things because of that reason. [...] Society sees it as wrong, premarital sex as wrong.

Quote 60, Interview R, Age 38

Participants showed awareness of the constraints of their wider socio-cultural environment. Yet in their discourse they focused on the individual role of women: they often individualised responsibility for contraception by asserting the need for women to be in control (Quote 61). They also asserted the need to educate women and equip them to make informed decisions (Quote 62)

I will say that it is popular among women who visit the hospital and are sexually active and are interested in knowing because I have had the opportunity of talking to a girl who was getting pregnant carelessly and then I was like “why? Don’t you know your menstrual cycle?” and she didn’t even know. You know? So it is not actually something... I think that it can help if people really understand how it works but a lot of people do not know but those who know it, use it effectively you know? Because it is the easiest and simplest, you know? It doesn’t give you any side effect like these contraceptives. Sometimes, some people take, take it and later, later they have side effects. They say “I use to have my menses like five days now it comes like two days” it is disorganised.

Quote 61 Interview D, Age 37

I think that discussing sexuality and making people equipped about what is ahead of them or what they can do to manage the very immediate problems they are having, I think it is very important. Yeah, so that people can make informed decisions and take or choose things you know? With good information.

Quote 62, Interview D, Age 37

Being in control, feeling uncertain

Participants found different ways of meeting their reproductive needs either through tactics of secrecy or through strategically combining different methods. There was little room for manoeuvre in preventing pregnancies (Quote 64). By weaving different contraceptive methods together, women make choices, but are also responding to the uncertainty caused by use of withdrawal and calendar methods (Quote 65, Quote 63), with withdrawal often used because it was the male partners’ preferred method or because men objected to the women using hormonal methods (Quote 63, Quote 64). Women talked about withdrawal as something outside their control; as something men do and have ownership of (Quote 63). Participants talked about the uncertainties arising from the fact that the preventive power of the withdrawal method was dependent on the man’s action and skills. Participants trusted the contraceptive power of calendar methods. Yet they reported not always trusting themselves in calculating the exact timing of ‘safe periods’ (Quote 65). Uncertainty about the timing of the menstrual cycle was a common concern amongst participants.

He [partner] was not into those condoms, he didn’t like using condom and stuff so that was why he got into the withdrawal method. He sometimes complained, because there is this times that the feelings comes so strong that he can’t do anything about it and stuff, and I didn’t want to go into any, em, like drugs and stuff because I knew it could have a side effect. I don’t think the withdrawal is safe, because that was what got me into this whole abortion stuff, and I don’t think it’s a good thing at all. Not at all because they might be a case that he will do something and will not tell you. That’s the decision I have taken now, it’s better for me to wait [abstain] and when the time for me to...because I would not like

to go into the same situation that happened first. Yes, I always tell myself, it would not happen [getting pregnant] but it happened, and I didn't want it to happen. So I had to do that thing [abortion], so I think I would be best for you as you wait [abstain] and... and even if you can't wait, it's good for you to go in for the condoms. I think the condoms are best because with these drugs nowadays, it has a side effect that at the end, you have problems with it.

Quote 63, Interview M, Age 22

When you come to the Ghanaian setting women don't really decide whether the partner should use condom or not [...] They have no say in whether you should use condom or not. When a woman raises the issues of condoms they have this: 'you are promiscuous' or something that comes in mind so a woman who don't even, er, who knows um, she is not safe for the, for the month and then has unprotected sex will use a pill.

Quote 64, Focus group, Age 18-24

The quote from participant R below (Quote 65) is a good example of how the tension between being in control and feeling uncertain is articulated in participants' narratives about contraceptive use. Participant R referred to the contraceptive methods she used in combination (calendar, withdrawal and condoms) as "tools" and "options" that she had and could choose at any time. Participant R presented herself as being in control of her reproductive needs and often highlighted the importance of spacing children. Yet a closer look at her account suggests she lacks control over the use of condoms – which are used at the last minute rather than throughout vaginal penetration – and has concerns arising from being unsure about whether her partner would manage to withdraw and worrying about miscalculating her "safe period".

R: I think that my husband is good with it [withdrawal method] and I'm very particular about spacing my kids.

I: What...is there anything that you dislike about it [withdrawal]?

R: I dislike...there is the tendency that you might make a mistake [respondent laughs]. A slight mistake, you know, so I am particular about that. That is the reason why um if I'm safe fine then I could do the withdrawal and then I know but if I am not too sure about my timing then, I'll, I will force for him to use the condom. Now he buys it more so that we will always have some. We don't have to run out of stock and then, um, I mean during the whole thing at a point when he thinks that he's coming, he'd just asks me to wait, let him get it. [...] I never bought it [condoms] before [laughs] Maybe I chose it [the condom] as an easy way out, yeah.

I: An easy way out of...?

R: As of having to calculate, thinking of calculation, when, as in when, you know, having to, whilst having sex you still have to think about the withdrawal and all those things.

Quote 65, Interview R, Age 38

Participant V (below) positions herself as making choices over different sex and contraception “styles” (Quote 66). She is presenting herself as having fun in taking risks and having agency in decision-making regarding contraceptive use (Quote 66). Yet she also talks about the “afterthoughts” she experiences when using withdrawal, and mentions ECP as a further option for her to stay in control of her fertility (Quote 66).

I start [having sex] it at dawn. It’s cooler that way [they laugh about it] so at dawn you go for the raw meat, and then maybe later in the day after breakfast lunch you want to go for the condom, and then in the evening you want, you just want it all in, and afterwards you go for the EC pill. You can try all styles you want [both laughing] without being bothered, [laughs] yeah and then the disadvantage one is, um, the skin to skin sometimes you start thinking ey there’s a little bit stuck in me, like it’s not a fun thing, the afterthoughts...the afterthoughts...but apart from that you enjoy everything else.

It’s fun that way besides it’s...apart from the fact that you have, you will be insecure after the sexual intercourse, maybe...especially if you are skin to skin.

I’m really have a lot of sex and then um I see my monthly cycle oh I thank God! I get happy [laughter]

Quote 66, Interview V, Age 22

How methods are talked about

ECP as as a ‘normal’ method

ECP was explicitly talked about as a normative pregnancy prevention method (e.g. framed as “the contraceptive[s]”). Participants listed ECP as one of the most popular contraceptive methods grouping it together with other modern contraceptive methods such as the condom or daily pill (Quote 68). When women were asked about which contraceptive methods they used, they introduced ECP as a default preventive method (Quote 68). Their talk about ECP appears to reflect the popularisation of this method (Quote 67), which is anchored within a narrative of choice (e.g. choosing between daily or ECP pills, Quote 68).

I stopped the Secure [daily oral pill] because I learnt it wasn’t...people were saying it not good and all that so I stopped it. So anytime I had like em, if I didn’t protect myself, I used um what is it? Posteno-2 [Postinor-2 ECP], that contraceptive, that what I used. Emergency pill and then that was what I was taking. I stopped using

the Secure, and when I see that I have sex that is not, am not safe that's when I use the Posteno-2 [Postinor-2 ECP].

Quote 67, Interview E, Age 31

There is this oral contraception that you take every month, so either the, em, person will take the oral contraceptive or go for the, that is the emergency contraceptive. Go for that kind of medication. And then the normal, em, how do you call it? The 72-hour one that will be after sex. Is it two, 48-hour after sex? That is the main one they would generally use.

Quote 68, Interview N, Age 37

ECP was spoken about as a familiar method amongst participants and this was conveyed in the language used (e.g. "the pills", "the contraceptives"). Note how interviewee N above (Quote 68) refers to ECP as "the normal" method. Some participants also talked about the underlying social context within which women learn about and become familiarised with the ECP (Quote 69, Quote 70).

They did a conference for ladies, stating like um in senior high school, letting us know that you don't have to go and hide somewhere and do an abortion, we have safe abortion and stuff like that, and even if you have sex and you are not sure you can use such pills like, like just dropping it down.

Quote 69 Interview V, Age 22

Use of commercial brands to refer to methods

Participants talk about methods using their commercial brand names (e.g. "Lydia", "Jadelle", "Secure", "Postinor-2", "Norplant" (Quote 70). The use of commercial brands to refer to ECP and daily oral pill methods emerged in combination with participants' use of the term "pill" to refer to both ECP and daily oral pill (quote 71).

I: So which of the contraceptives are you aware of?

R: Am aware of Lydia contraceptive. Em, I know of em Postinor, I know of Secure, yes and the others don't come to mind. Those are the ones I can remember. I would say now, I think Lydia [interviewer clarifies later she is referring to daily pills here not ECP] but in school that was some few years ago, I think Postinor was more popular because on campus, mostly what you hear is "Postinor, Postinor" so I think it's a two way affair. If in town, in any setting I think Lydia is on the rise but in school, on campus where you find young, a lot of young people I think Postinor is more.

Quote 70, Interview H, Age 24

The pills [referring to ECP], sometimes, if you take it after sex, it doesn't work. Yeah it doesn't work. To me, it doesn't work.

Quote 71, Interview T, Age 21

Taken-for-grantedness of the rhythm method

Women spoke as though all women would always use the rhythm method, and so often did not mention it explicitly when asked about what methods they used. In this respect, the rhythm method was not recognised as a “method” as such. That is, participants tended not to mention using calendars when asked about the contraceptive methods they used, only revealing later in the course of the interview that they were using rhythm method or had used it in the past, and women’s knowledge about and use of the rhythm method seemed to be taken for granted by participants. Usage became apparent for instance when participants made reference to “safe” and “unsafe” periods, and used this language to contextualise and give nuance to their use of the calendar method in combination with other methods (Quote 72). For instance, participants referred to using ECP and/or withdrawal during “unsafe periods” (i.e. unsafe calendar periods). When participants explicitly introduced the calendar method as one of the contraceptive methods they used or thought were popular in Accra, they would often refer to it as the “safe period/s” or the “menstrual cycle”.

The fact that the calendar method was in most cases not explicitly talked about as a method conveys how much this is an ingrained and taken-for-granted preventive practice. For instance, participants referred to using ECP and/or doing withdrawal during “unsafe periods” (i.e. unsafe calendar periods) but did not identify the calendar method as a fertility regulation strategy.

I have used something before, I don't know the name now. Um, I had sex and I realised it was not safe and then I took... [partner] gave me something, I don't remember the name, but I hear it is something you take if you don't want to get pregnant.

Quote 72, Interview D, Age 37

Use of time and body location to refer to method

Participants interchangeably referred to implants as injectables, and vice versa. They sometimes referred to these methods by using their commercial brands but more often by referring to their duration (e.g. “3-month method”)) and part of the body where they are inserted (Quote 73). Body location was one of the most common ways of referring to IUDs amongst women who had not used IUDs. In most cases these participants did not use the word “IUD” but instead referred for instance to “vagina” (Quote 74).

I know of the ones you go to the hospital to inject. The injections or there are some things they put up on the arm or they inject into your system and it prevents you from getting pregnant. If you want to now have babies you can go and take it out or you don't go for the injection again.

Quote 73, Interview H, Age 24

They have some too they will have to fix it under your, inside your vagina and some under your arm.

Quote 74, Interview N, Age 37

Knowledge gaps

The main apparent gap in knowledge of contraceptive methods amongst participants was in relation to IUDs. In general participants did not talk about IUDs at all. The accounts of those few participants who did suggest lack of understanding of the method (e.g. how it works, what it is, where it is inserted) (Quote 75). Participants frequently drew upon inaccurate information about what IUDs are and their side effects (Quote 75, Quote 77, Quote 76).

I: So which methods would you say are unpopular?

R: Um the vagina something, that one I don't really know much about it. I don't really, I don't even know how they... but I learnt there is one they use um, I don't know, they use to tighten the... is it the clitoris or something?

Quote 75, Interview E, Age 31

Okay, the IUD is unpopular. If you ask me, I would say it's unpopular because most people consider it as one of the more of a complex method of birth prevention, I am told they bury a copper silk into your [laughs], your skin or something I have never seen somebody do it but that's what I am told and most people are scared of being cut.

Quote 76, Interview O, Age 26

Participants who did not use injectables or implants found it difficult to name these methods (Quote 77) and lacked knowledge about how they worked, and how they were used (Quote 80). Participants who did not use hormonal methods or IUDs confused these methods (Quote 76, Quote 78), and some would talk about the "pill" to refer interchangeably to both ECP and daily oral pill. Participant D below (Quote 77) exemplifies this: she seems not to know/remember the name for the implant, or the name for the ECP (the rest of the interview suggests it was an ECP) her partner provided her with.

There are these contraceptives that they insert into the body like needles and each one represents a year so if it is for like five years, she will do like five and then after the fifth year, she could start having children.

Quote 77, Interview D, Age 37

Participants talked about biomedical "side effects" of implants and injectables they had heard about, for instance the misconception that temporary methods including implants and injectables are

irreversible (Quote 78) and not suitable for spacing births (Quote 78). One focus group participant, said implants could move through the body (Quote 79). Another participant (Interview N, Age 37) said that after a year she had her implant removed because she thought her menses were “piling up under” her abdomen.

Most women fear that when they go to the hospital and they are injected, I don't know, I have forgotten the name of the... When it's time for them to give birth, they can't go and remove it back so I think that is what is unpopular in Accra.

Quote 78, Interview B, Age 19

R1: Yeah the implant you're gonna, you know, it's...it's...it's a rod so it's movable, so some will actually say it's going to crawl under your skin.

R2: And sometimes it makes you develop male features like all of a sudden you might...

R3: Get facial hair [Laughter from room]

Quote 79, Focus group, Age 18-24

There is this other one, which is the monthly injection. With the injection, they even have three months. They have, they have two, one, two, two and three months

Quote 80, Interview N, Age 37

Learning from friends and via rumours

The way participants talked about modern hormonal contraceptive methods (particularly ECP) and about pregnancy termination suggests that participants learned about methods from their friends and peers (Quote 81) and from rumours (Quote 82). Few participants talked about having been counselled by staff at family planning clinics.

R: I share the information [Laughs] I do, and when they [friends] have any other information to share with me they do as well.

I: Cytotec? Why do you think they are popular?

R: Because I heard it from a friend and I think a couple of friends told me about it.

Quote 81, Interview V, Age 22

Participants talked about having become aware of modern contraceptive methods and having gathered information about these methods through other women (Quote 82). Participants often talked about having heard the experiences of others. They often drew upon rumours they had heard regarding methods for contraception and abortion.

I: So how did you find out about the Secure [daily oral pill]?

R: The secure? It was a friend.

I: A friend?

R: Yes, somebody was telling me

I: What about the Postinor-2 [ECP]?

R: The Postinor-2 also, that was three years ago, it was a friend who showed me. A friend was telling me [about the Secure daily oral pill] that if I am taking it I will grow fat. That was what they were saying.

Quote 82, Interview E, Age 31

Their accounts often contained stories about how methods had affected other women. For instance, when talking about their biomedical concerns or (incorrect) understandings about contraceptive methods participants would often support their views by saying “I’ve heard”, “I learned”, “someone told me” (Quote 83). Some participants reported that they had stopped using a contraceptive method because of what they had heard about the method from others. Participants also used this type of ‘second-hand’ language when talking about out-of-clinic abortion practices (e.g. Cytotec) and ‘home’ and herbal remedies for preventing pregnancies (Quote 83, Quote 81).

I hear that um there are some unsafe drugs on the market that people can buy from pharmacy to take just to, you know, end pregnancies. I know that, I have also heard that there are some injections that the doctors can give to, you know, make the woman just give birth even when the baby is not at full term and I also hear that people grind bottles and add Guinness to it and mix all manner of things you know? But they are all not safe.

Quote 83, Interview D, Age 37

Media

We asked participants what methods they thought were popular in Accra and why. They often named condoms and OCPs (despite the fact that judging by their reports about their own practices, calendar methods and withdrawal seemed far more popular). Participants explained the popularity of condoms and daily oral pills one of the main reasons they gave was that these methods appeared often in media (TV and Radio programmes and adverts) (Quote 84, Quote 85). It is possible that the adverts themselves contribute to the impression that the methods are popular. Some participants, particularly younger ones, also used new media (internet, social media, mobile phone apps) to search for information about methods.

I: Why do you think the pill is popular in Accra?

R: Hmm... because of the education that goes on TV, in the media and em, and also, also friends' discussions. Because when you do meet your friends, you do discuss issues concerning your marital status, your sexual, em, status and stuff so it's normally with...

I: So how did you find out about the condom?

R: On telly? And I read as well. The adverts that goes on and I read. Friends also talk about it.

Quote 84, Interview A, Age 30

There's this particular one "Secure" [OCP]. It's called, I think the brand name is "Secure". Yes, and it was popularly advertised on TV a lot and then um on the advert I think, eh, it talked about giving you, eh good skin and it gives you the comfort of choosing how you want to plan your pregnancies. So it's just the pill like I said so is the notion that is so easy just taking your pill to prevent unwanted pregnancies, yeah.

Quote 85, Interview R, Age 38

Discussion

Women in Accra navigate complex and sometimes incompatible ideas about womanhood and fertility. On the one hand, they identify as modern urban women, educated and professionally successful. On the other, their society also tells them they must bear children to fulfil their familial and social obligations as women. Fear of side effects of hormonal methods is strongly related to these conflicting obligations: they wish to postpone childbearing and have immediate access to fertility when the preferred time to have children arrives but are sometimes incorrectly told that hormonal methods may preclude pregnancies altogether. Many women seem to weigh up risk of infertility versus risks of using different methods plus abortion as a backup when those methods do not work as planned. In many cases, risk of infertility appears to be the greater concern. In fact, the choice was easier for many women because they were confident about the effectiveness of the rhythm method, particularly when they had been using it for several years with no pregnancy.

Acting in secrecy to regulate fertility is strongly related to women's competing identity positions in a modern society retaining traditional elements. Acting in secrecy illustrates women's struggles to engage in fertility regulation practices that respond to their identity needs (e.g. protect their social worth) and competing interests and projects (reproductive and career needs). Acting in secrecy is an important fertility regulation 'tactic' women use to navigate the constraints of their social environment, including incompatible ideas about womanhood and fertility but also patriarchal values (e.g. needing to conform to husband's/partner's opposition to hormonal or long acting contraceptive methods) and a

culture of fear of infertility and marriage breakdown which is perpetuated by many in the social context, including by the women themselves.

It is possible that the secrecy around use of hormonal methods and particularly around abortion may contribute to a sense that the rhythm method 'works' for most women, because its apparent efficacy is distorted by the fact that it is often in women's own interests to emphasise their 'natural' techniques and not reveal other methods they are using alongside them.

Programmatic Implications

This study has provided key information of use for the Ghana Family Planning Programme. A key implication of our study is that there is a need for better promotion of effective methods, particularly long acting methods such as IUDs which appear to be little known and little used. Addressing the question of return to fertility after any method should be a key part of any counselling/messaging on contraceptive methods. Attention should also be paid during counselling to the effect of the method on menses and women should be told carefully what effects they should expect. Reduction or lack of bleeds that occur with some methods should be explained in advance so women do not worry they will become infertile. Counselling and marketing might also consider how to handle the question of the desirability of secrecy in method use for some women. The 'discreet' nature of certain methods may be a selling point.

Long acting methods should be promoted more adequately and healthcare providers and social marketing should focus on this area. For women who still do not wish to take up more reliable methods, there may be a role for cycle beads, which are already in the national family planning program, as a way to help women who are incorrectly using calendar methods to remember the 'safe' period. However, please note that our study shows that women using the calendar method are not abstaining from sexual intercourse during the 'unsafe' period so any such promotion must also include discussion of methods to be used during the 'unsafe' period. For instance, condoms should be provided to those women, and ECPs made available in the event of condom failure. Risks of pregnancy associated with use of withdrawal and condoms during the 'unsafe' period should be emphasised and the discussion could also be used as a way to promote more effective methods. In addition, we would urge caution before promoting calendar method using cycle beads. More information on use and understanding of cycle beads would need to be collected to ensure that promoting this method did not inadvertently prevent women from using more effective methods e.g. if women believe calendar methods are as reliable as long-acting methods simply because they are being promoted via the clinic they might switch from more effective methods back to calendar methods. In other words, it is important to ensure that women who choose calendar methods use them correctly, but it is also important to ensure women are choosing their methods based on the best advice and information available and not simply assume that a woman using a calendar method will not want to use a more effective method once she understands it better.

Identified frequent and wide use of ECPs again suggest an unmet need for methods that are perceived as safe and reliable. ECPs are not sufficiently reliable to be used as a regular method and women should be advised of this so that they may try to avoid unintended pregnancy. However, care

must be taken not to imply ECPs are dangerous as this might have the opposite effect: it might reduce use without increasing use of better methods, and hence increase unwanted pregnancy. Health workers must be equipped with the correct information to provide high quality counselling about alternative methods of contraception to women relying on ECPs. The reasons for and extent to which the N-tablet is being used to try to prevent pregnancy should be investigated further as there may also be a need for specific intervention with respect to misconceptions around N-tablet.

The advent of medical abortion has likely avoided much mortality and morbidity of women wishing to terminate pregnancies who otherwise may have used unsafe methods. However, current reliance on calendar methods means unwanted pregnancies are likely to occur in fairly high numbers, many of which would be avoided if more effective methods of contraception were used. Providers should be trained to provide good quality post-abortion contraceptive counselling to encourage women to take up reliable methods, ideally long-term methods. The apparent lack of information about IUDs and other long-term methods should urgently be addressed to ensure women have a wide a range of options as possible. Provision of IUDs may also help address fear of side effects from hormonal methods and better uptake of long-acting methods will reduce unwanted pregnancies and hence reduce recourse to abortion.

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The **STEP UP (Strengthening Evidence for Programming on Unintended Pregnancy) Research Programme Consortium** generates policy-relevant research to promote an evidence-based approach for improving access to family planning and safe abortion. STEP UP focuses its activities in five countries: Bangladesh, Ghana, India, Kenya, and Senegal.

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