View metadata, citation and similar papers at core.ac.uk
brought to you by CORE
provided by University of the Western Cape Research Repository

Culture, Health & Sexuality
An International Journal for Research, Intervention and Care

ISSN: 1369-1058 (Print) 1464-5351 (Online) Journal homepage: https://www.tandfonline.com/loi/tchs20

Unmet need for family planning and barriers to contraceptive use in Kaduna, Nigeria: culture, myths and perceptions

Irit Sinai, Elizabeth Omoluabi, Adenike Jimoh & Kaja Jurczynska

To cite this article: Irit Sinai, Elizabeth Omoluabi, Adenike Jimoh & Kaja Jurczynska (2020) Unmet need for family planning and barriers to contraceptive use in Kaduna, Nigeria: culture, myths and perceptions, Culture, Health & Sexuality, 22:11, 1253-1268, DOI: 10.1080/13691058.2019.1672894

To link to this article: https://doi.org/10.1080/13691058.2019.1672894

© 2019 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.

Published online: 29 Oct 2019.

Submit your article to this journal

Article views: 2177

View related articles

View Crossmark data

Citing articles: 3 View citing articles

Full Terms & Conditions of access and use can be found at
https://www.tandfonline.com/action/journalInformation?journalCode=tchs20

CULTURE, HEALTH & SEXUALITY
2020, VOL. 22, NO. 11, 1253–1268
https://doi.org/10.1080/13691058.2019.1672894

Taylor & Francis
Taylor & Francis Group

Unmet need for family planning and barriers to contraceptive use in Kaduna, Nigeria: culture, myths and perceptions

Irit Sinai[a], Elizabeth Omoluabi[b,c], Adenike Jimoh[d] and Kaja Jurczynska[e]

[a]Palladium, Washington, DC, USA; [b]Akena Associates, Kaduna, Nigeria; [c]Department of Statistics and Population Studies, University of the Western Cape, Cape Town, South Africa; [d]Department of Paediatrics, College of Medicine and Health Sciences, Bingham University, Jos, Nigeria; [e]Palladium, London, UK

ABSTRACT
In 2017, just one-fifth of all married women of reproductive age reported using contraception in Kaduna state, Nigeria, while many more experienced unmet need for contraception. These realities drive risky fertility behaviours and compromise reproductive rights. This study explored the determinants of low modern contraceptive uptake and persistent unmet need among women in the state. Nine focus group discussions were conducted with married women who met study criteria for unmet need, and who had different levels of access to contraception. Discussions confirmed that many women in Kaduna do not feel empowered to make contraceptive decisions. Yet there is a growing preference for smaller families and decreased stigmatisation of contracepting women. Barriers at home, in the community and in health facilities impose a ceiling on the extent to which women's fertility desires may be achieved. These include cultural, normative, social and financial factors, such as the need for husband's permission to access services, service providers' insistence on spousal consent, subtle and overt pressures to use folkloric approaches by religious leaders, and high real, or perceived, out-of-pocket costs. These findings suggest that Kaduna is on the cusp of social change and study findings can be translated into programmatic interventions to improve voluntary uptake of contraception.

ARTICLE HISTORY
Received 13 April 2019
Accepted 23 September 2019

KEYWORDS
Family planning; unmet need; misconceptions; Kaduna; Northern Nigeria

Introduction

In 2017, over one quarter of pregnancies in Kaduna State, northern Nigeria, were unintended (PMA2020 2018), resulting in pregnancies that occur at too young or old a maternal age, high parity, pregnancies that are too closely spaced, and unsafe abortions. Such pregnancies pose a greater-than-average health risk and are key drivers of maternal, new-born and child morbidity and mortality (Cleland et al.

CONTACT Irit Sinai Irit.sinai@thepalladiumgroup.com

© 2019 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.
This is an Open Access article distributed under the terms of the Creative Commons Attribution License (http://creativecommons.org/licenses/by/4.0/), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

2012; Ahmed et al. 2012; Conde-Agudelo et al. 2012). Low contraceptive uptake and unmet need for family planning in Kaduna, as well as women's lack of empowerment to make fertility decisions, compromise reproductive rights and their ability to determine freely the number and timing of their children, and their access to good quality information and services, free from discrimination or coercion (Hardee et al. 2013).

The purpose of this study was to unpack the reasons for low contraceptive use and persistent unmet need for family planning in Kaduna state, including associated norms, myths and perceptions. Specifically, the study adds to the literature by examining the dynamics behind why some women—those who are sexually active, do not want to become pregnant, and know about contraceptive options and where to access them—do not use a contraceptive method. Understanding these dynamics is important in the design of future initiatives and programmes to increase contraceptive prevalence in Kaduna.

Unmet need for family planning refers to a state in which women do not want to become pregnant—for two or more years, or at any point in the future—but are not using any method of contraception (Bradley et al. 2012). Demographic surveys reveal that women's reasons for not using a method can generally be grouped into broad categories relating to (1) infrequent sexual activity or perceived infecundity; (2) opposition to contraceptive use by the woman, her partner, or someone else close to her; (3) lack of awareness of contraceptive methods, or limited availability and/or accessibility to family planning methods and/or services; and (4) concerns about side effects or health risks of contraceptive method use (Sedgh, Ashford, and Hussain 2016). Women who perceive that they have low or no risk of conceiving often underestimate their sexual activity and their risk of becoming pregnant (*ibid)*. Concerns about side effects and health risks across world regions suggest that non-use may be linked more to past method use experience—or to perceptions of the experiences of other women who had used contraception—than to cultural or religious practices (*ibid*).

Unmet need estimates—such as those produced by the Demographic and Health Surveys (DHS)—are calculated to provide standardised estimates at the population level, which can be compared across regions and time. Sinai, Igras, and Lundgren (2017) presented a framework that sees unmet need as a fluid condition that can change frequently, and which emphasises the importance of women's perceptions of their own contraceptive needs. The framework distinguishes between three types of unmet need, each requiring different types of intervention responses.

- Unmet need linked to traditional or folkloric method use. These women believe that they are preventing pregnancy, while in reality the methods (e.g. withdrawal) or folkloric approaches (e.g. herbs, douches) used are sub- or fully ineffective, and hence unmet need persists.
- Unmet need attributed to the woman's incorrect perception that she or her husband are not fertile or are sub-fecund. Examples include women who have sex infrequently, as well as those who are breastfeeding. While the lactational amenorrhoea method (LAM) protects from pregnancy, breastfeeding that does not meet the method's requirements does not.

- Unmet need attributed to supply-side issues, including non-use of contraception due to misinformation or fear of side effects—circumstances often indicative of the compromised quality of services and provider-client interactions.

Despite years of programming, unmet need in northern Nigeria remains at about 20% of married women of reproductive age (NPC and ICF international 2019). Studies in the region present a consistent picture of a closed, conservative society, with cultural and religious conventions that encourage large family size and deter contraceptive use (Sinai et al. 2017). The region's ethnic majorities are Hausa and Fulani, and the population is predominantly Muslim. About two-thirds of women of reproductive age in northern Nigeria have no formal education and of these about three quarters are illiterate—realities that are consistently associated with lower levels of contraceptive use (NPC and ICF International 2014).

Men in northern Nigeria are considered leaders, household income earners and the authority within the family, community and society (Khalid 2004). Women often refrain from going out, socialising, working and sometimes even visiting their natal relatives without their husband's explicit permission (Yusuf 2005). While it appears that couples in northern Nigeria want to have large families (explaining the relatively lower rates of unmet need) – results from a recent study show that a large family size is their expectation, not their wish. In fact, many couples are fatalistic ('It is up to God') feeling unempowered to think of how many children they want to have, when to have them, and whether to use contraception (Sinai, Nyenwa, and Oguntunde 2018). Among those women or couples who do wish to space or limit the number of children they have, perceived societal opposition or disapproval inhibits contraceptive use. Women who use contraception are often perceived to be 'promiscuous'; men who allow their wives to use contraception are considered weak (Ankomah et al. 2013). As a result, modern contraceptive use in northern Nigeria is low (4.9% and 7.2% of married women of reproductive age in North East and North West regions respectively (NPC and ICF International 2019).

Kaduna State, where this study was undertaken, is culturally and economically more heterogeneous than neighbouring states. Compared to other northern states, approximately half of Kaduna's population is Muslim, women achieve higher levels of educational attainment, and the proportion of married women using contraception is higher (Table 1) (NPC and ICF International 2019). And yet, unmet need for family planning in Kaduna is still a challenge, while contraceptive use in Kaduna remains low.

Table 1. Education, contraceptive use and unmet need among married/in-union women in North-West zone states, Nigeria.

	Literate (%)	Current contraceptive use (%)	Unmet need (%)
Jigawa	24.8	4.0	14.5
Kaduna	**54.4**	**14.9**	**12.3**
Kano	46.1	6.3	16.5
Katsina	32.6	3.4	15.7
Kebbi	30.9	3.5	11.8
Sokoto	20.1	2.3	13.0
Zamfara	31.0	7.3	15.0

Sources: NBS and UNICEF (2017); NPC and ICF International (2019).

Recognising these realities, the Kaduna State government has articulated an ambitious two-year (2016–2018) Family Planning Costed Implementation Plan (CIP), intended to guide family planning programming across the state. The CIP is aligned with Nigeria's national commitment at the 2012 London Summit on Family Planning and its subsequent Family Planning Blueprint. It captures evidence-based, high-impact family planning interventions for implementation across the state, including those aimed at addressing the demand and supply components of unmet need for family planning (Kaduna State Government 2016).

This study was conducted in the design phase of the Voluntary, Rights-Based Family Planning (VRBFP) project in Kaduna. As part of this project, a comprehensive package of interventions was implemented in 15 primary healthcare treatment facilities for one year, with four levels of programming: policy, service delivery, community and individual. Results of the current study helped guide the development of these interventions.

Methodology

We conducted nine focus group discussions with married women of reproductive age across Northern, Central, and Southern zones of Kaduna state. Each group consisted of 8–10 women. Participants were sexually active, were not pregnant, did not want to become pregnant in the next year[1] and yet were not using any method of family planning. We included women of various ages, with separate groups for younger and older participants, so that women felt free to speak more openly. The study design called for four focus groups with married younger women, aged 15–29, and four with married older women, aged 30–49. However, a sufficient number of eligible women aged 15–29 arrived at the discussion site in one facility to accommodate two groups. Rather than turn half of them away, we therefore conducted five groups with younger women ($n = 44$), and four with older ($n = 37$). To increase heterogeneity, five of the focus groups targeted women from the catchment areas of public, primary healthcare clinics that provide a relatively robust and full method mix – including long-acting and short-acting methods. The remaining four focus groups targeted women from catchment areas of public, primary healthcare facilities that had a limited supply of short-acting (only) contraceptive methods, or no methods available on-site. None of the facilities selected were receiving support from donor-funded projects at the time of the study. Table 2 describes the nine focus groups. Data were collected in July 2016.

Table 2. Location of focus groups and age of participants.

Name of local government area	Residence	Age group of participants
Igabi	Rural	15–29
Igabi	Rural	30–49
Igabi	Rural	30–49
Jaba	Rural	15–29
Kaduna North	Urban	15–29
Kubau	Urban	30–49
Zangon Kataf	Rural	15–29
Zaria	Urban	30–49

Trained female recruiters identified potential respondents and invited them to participate in the study. They were of the same ethnic affiliation of catchment area residents, were conversant with cultural and religious practices in the area, and were fluent in speaking and writing Hausa, the most commonly used local language. The recruiters approached women in each purposively selected community and assessed their eligibility using the following questions developed by Sinai et al. (2017) to evaluate perceived contraceptive need:

- Are you pregnant now? (not eligible if 'yes')
- Would you like to become pregnant within the next 12 months? (not eligible if 'yes')
- Are you doing something to delay or avoid becoming pregnant?
  - Eligible if 'no'
  - If yes, which method are you using to avoid becoming pregnant? (eligible if using traditional or folkloric method)
- Is it possible for you to become pregnant?
  - Eligible if 'yes'
  - If no, why do you say that? (eligible if reason provided suggests misconception about her fertility)
- You said that you do not want to become pregnant this year, but you are not using any method to avoid pregnancy. Please tell me why (eligible if reasons imply unmet need).

Using female gatekeepers as recruiters for a sensitive subject such as contraceptive use facilitated recruitment. Ethical approval was obtained from the Kaduna State Health Research and Ethics Committee before fieldwork began. All participants were asked to provide consent individually (not in a group setting) to avoid peer-pressure to participate.

Discussions were designed to explore social attitudes, beliefs and practices that act as constraints to contraceptive uptake among women of reproductive age in Kaduna. They were conducted using a thematic focus group discussion guide, by two experienced female research assistants – one moderated the discussion, the other took notes and aided the moderator as needed. Both were trained in the use of the focus group guide. Their four-day training included substantial role play and pre-testing of the guides with women other than the participants. With participants' consent, the focus group discussions were audio-recorded to ensure that the accounts of all participants were captured.

The discussions were in Hausa. They were transcribed into English for analysis. Through an iterative process, all nine transcripts were read several times to identify emerging themes by two individuals. One coded manually, the other used NVivo v. 10 software. They then compared their coding and emerging themes, and identified differences to arrive at a consensus and synthesis for the final results.

By conducting multiple focus groups, we reached saturation within and across groups during coding and analysis. Our analysis plan followed the ideation model of communication (Health Communications Capacity Collaborative 2014), which lists

the elements needed for a couple to develop the intention to use a contraceptive method, and then to turn their intention into behaviour (actual method use). These include: (1) knowledge and skills; (2) cognitive and emotional ideation (beliefs, values, perceived risk, subjective norms, self-image, emotional response, empathy, self-efficacy, support and influence, personal advocacy); and (3) environmental factors (supports and constraints). Since all participants were women, we present the results from the perspective of the woman, not the couple.

Results

A total of 81 married women participated in the nine focus group discussions. Their demographic reflect known characteristics of the Kaduna State population. Two-thirds of participants were Muslims, the remainder Christians. Younger women were better educated, with 64% having completed secondary education compared to 32% of older participants. Twenty-eight percent of participants were in polygamous marriages, and 80% of the older participants had at least one co-wife. Older and younger women had, on average, five and two children respectively (range 1–13).

Knowledge and skills

Before women can adopt a family planning method, they need to have some knowledge about available methods, their characteristics, and where they can be obtained. Information about contraceptive methods in Kaduna appears widely available. Participants cited hospitals, health facilities, pharmacists, media and other women (users and non-users) as their critical sources. All participants had heard of modern family planning. When asked to name the contraceptive methods used by women in the community, all mentioned injectables, with a notable subset also identifying implants and contraceptive pills. Only two participants mentioned tubal ligation.

> Most of the time they use injections or implants, but injection is mostly used (Amina,[2] 31, 1st wife of two, 2 children, Muslim).

Many folkloric methods were mentioned. The most frequently cited approach was drinking of various substances after having sex. Salt mixed with water was mentioned often. Other substances included fizzy drinks, local herbs boiled in water, and water infused[3] with Qur'anic verses.

> There is one religious method that is called *rubutu*. In this case you write some [Qur'anic] verses on a piece of paper, cut the paper into tiny pieces and then you swallow the pieces of paper bit by bit depending on the duration of the safe period [from pregnancy] you want to have (unidentified, 15–29 group).

Other traditional and folkloric methods mentioned included the smoking of spider web and local herbs, wearing beads around the waist, and the traditional method of withdrawal. Information about these methods of pregnancy prevention was circulated locally by religious and traditional leaders, and by women and men in the community. In some cases, women heard about these methods from their husbands (who heard about them from religious leaders).

> We get the information about the traditional methods from the elderly members of the community. I have used the *guru* [sacred rope] tied round the waist and Laya [sacred band] (Bintu, 40, 1st wife of two, 7 children, Muslim).

Periodic abstinence, that is, abstaining from sexual relations on the days that the woman considers to be fertile in order to avoid pregnancy, was mentioned in four focus groups. However, it was not considered to be a family planning method. Rather, participants simply thought of it as doing nothing to delay or avoid pregnancy. Without exception, the version of periodic abstinence described involved abstaining from sex for several days after the woman's period, while classifying the days in the middle of the cycle—when women are generally most fertile—as 'safe' from pregnancy.

> I normally abstain from [having sex with] my husband for some days after my menstruation. That is why I am not using any method (Mary, 24, only wife, 1 child, Christian).

Several other misconceptions about human physiology – male and female – were highlighted in the discussions. For instance, some women believed that they cannot conceive frequently because their 'eggs are far.'[4] Women whose eggs are close are thought to conceive easily, while women whose eggs are far only become pregnant every few years, even if sexually active. These women are perceived as sub-fecund, and therefore not requiring the use of contraception to prevent pregnancy.

> There are some people that say that their egg is far, and they can reach four to five years before they conceive. So, some people are comfortable with it because it is suiting their births and the spacing between their children (Felicia, 28, only wife, 1 child, Christian).

Another common misconception was that women must have as many children as they have ova, otherwise they will become sick.

> Some women think that if they do not give birth to all their eggs, it can lead to diseases or make her to become sick, so they try as much as possible to see that they deliver all the eggs (Favour, 29, only wife, 1 child, Christian).

Finally, women were perceived to become pregnant from pre-ejaculate liquids, not from sperm.

> Yes, the male sperm that comes at the beginning of the intercourse is what makes women pregnant not the one that comes at the end of long intercourse that only makes the couples feel the pleasure of having sex (Huseina, 30, 3rd wife of three, 3 children, Muslim).

Ideation

According to the ideation model of communication (Health Communications Capacity Collaborative 2014), ideation factors can be grouped into three categories: cognitive, emotional and social. Cognitive factors are the individual's beliefs, values and attitudes, as well as how the individual perceives what others think should be done, and what others are actually doing. Emotional factors include the individual's positive or negative feelings about the behaviour (in this case, contraceptive use), as well as how confident a person feels about performing the behaviour (self-efficacy). Social factors consist of interpersonal interactions, such as pressure from relatives, that convince someone to behave in a certain way.

Cognitive ideation

Number of children is 'up to God'. Our findings about the importance of religion in decisions concerning family size and contraceptive use confirm what is known from the literature on northern Nigeria. According to most Muslim participants, the hope of paradise depends on their willingness to fulfil their marital responsibilities, which include providing their husbands with unrestricted access to their bodies and the resulting pregnancies. Moreover, both Muslim and Christian participants believed that children are God's gift, and therefore should not be declined.

> We have to thank God who gives us the children and pray to Him to give us good health and strength to care for them (Rose, 31, only wife, 5 children, Christian).

Because children are God's gift, many women do not feel empowered to make contraceptive decisions.

> It is God who gives it to you, and you cannot do anything about it (Zahra, 36, 2nd wife of three, 7 children, Muslim).

Women have many children

Participants confirmed that couples in Kaduna have many children, and have them frequently.

> In this town, a woman who delivers in the last Ramadan[5] it is very likely she might be pregnant the next one (Rose, 31, only wife, 5 children, Christian).

In addition to the belief that children are God's gift, the number of children a woman has was perceived to depend on her age at marriage, her husband's approval and his perceptions, competition among wives and non-use of contraception. Table 3 shows the most frequently cited reasons for women having many children.

On the other hand, there is a growing awareness that having many children is bad for women's health, and that it is difficult to support many children. According to participants, some people are no longer taking the number of children for granted. They realise the burden of high fertility and would prefer fewer children.

> God gives us these children and He provides us with what to sustain them. On the other hand, people are now complaining about the number of children. People now don't want

Table 3. Reason for having many children, by age group.

	20–29 years	30–49 years
Number of children is up to God	a	a
Husband wants many children or opposes contraception	a	a
To increase share of husband's inheritance	a	a
Son preference	a	a
Pressure from relatives/in-laws	a	a
Future social and economic security	a	a
Competition among co-wives for respect/pride	b	a
Tradition	b	a
Family planning methods failure	b	a
Incorrect knowledge of women's fertile period[c]	–	a
High child mortality	b	–

[a]Chorused by all participants in all focus groups in the age group.
[b]Echoed by most participants in at least one focus group in the age group.
[c]Incorrect knowledge means that participants stated an incorrect 'fact' about women's fertility.

> to take responsibility. In fact, people are saying the number of children women give birth to is too much (Asabe, 49, 1st wife of three, 9 children, Muslim).

Desire to space pregnancies. Similarly, many women would like to be able to space their children. The consensus among participants was that men are attracted to younger-looking bodies. The social value of the woman's body declines with age and repeated deliveries. Therefore, married women make a conscious effort to remain attractive to their husbands. For most participants, the likelihood of being put aside for a younger woman would be hastened by short child spacing. Women with longer birth intervals were perceived to look attractive and youthful. Participants argued that by allowing three years between births, the woman's body has more time to recuperate. Other women will also view her as a role model as she provides good example of an attractive, yet fruitful woman. Awareness of the need to maintain a youthful appearance resonated more among participants in their forties than those in their twenties.

> Those using the [contraceptive] methods are much healthier in looks than those who do not. If you would see my agemate who is using the methods, you would think I am older than her because she rests after every delivery before another (Fatima, 31, 2nd wife of two, 6 children, Muslim).

Modern contraceptives perceived as risky. Most participants perceived there to be a significant risk to using modern contraceptive methods, especially injection. In all focus groups, participants traded stories about acquaintances or women they heard of who suffered significant side effects or long-term health problems, such as persistent bleeding (often requiring hospitalisation) and problems with future fertility.

> Some women want to use the methods but are scared of the excessive bleeding that usually accompanies the use of the methods. I know of a woman who bled for more than two weeks after using a method of delaying pregnancy (Laraba, 45, 3rd wife of three, 7 children, Muslim).

> I see many women after using it and they want to have children, they usually don't conceive when they want […] for a very long time. I observed that in most cases when they eventually conceive, they either lose the child after birth or sometimes even lose their lives during delivery (Rita, 28, only wife, 3 children, Christian).

Community is not enabling. Cognitive ideation of contraceptive use also includes the individual's perceptions of what others in the community think about the behaviour. Participants confirmed what is known from the literature, that women who use contraception are considered to be promiscuous or bad, and that men who let their wives use contraception are considered weak.

> Some people see the women who use family planning as promiscuous. This is because they think that such women are engaged in extra-marital sexual activities. That is why they are using the methods to prevent them from getting pregnant (Thabita, 25, only wife, 3 children, Christian).

While participants across focus groups perceived that the community views contraceptive users in a negative light, they also identified a process of gradual change and

acceptance of family planning use. Some participants said that they, themselves, think that women who use contraceptives are courageous.

> We viewed them as women who enjoyed their lives, because there is no comparison between women who use that method and those who do not. What is more interesting in this community is that people are beginning to rethink about the use of family planning methods. I really adore women who use family planning methods; I'd really love to use it if my husband would allow it (Asabe, 49, 1st wife of three, 9 children, Muslim).

Emotional ideation

As shown above, participants' feelings about contraceptive use were generally positive, although they were concerned about side effects and health risks. They recognised that many children are difficult to support, and that spacing children is good for women's and children's health. Several participants would have liked to use contraception if they were empowered to do so. Self-efficacy suffered because women felt that their husbands would not condone contraceptive use and the community was not enabling. Participants confirmed that in Kaduna, men make most decisions, including those about the timing and spacing of pregnancies. They also said that most men (and certainly their own husbands) oppose contraceptive use, as do their relatives.

> In my area if a woman uses a family planning method, people think that her husband does not have control over [her] and that she is not submissive to her husband, and in most cases the woman encounters problems with her husband's relatives (Rita, 28, only wife, 3 children, Christian).

Many participants perceived that their husbands did not recognise the burden of having many children, as they saw child rearing as solely the mother's responsibility. In addition to fulfilling what they perceived as the requirements of their religion to procreate and fill the earth, having many children continued to be positive for men. Limiting the number of children caused men to appear weak. Some participants perceived that their husbands would view them as more beautiful and alluring, and love them better, the more children they had. However other participants said their husbands approved of family planning and would want them to use contraceptives, or that their husbands would appreciate them more if they did space their children, despite not allowing them to do so for fear of societal opposition.

> Some men are not against it, because when the woman looks good because she is resting from childbirth, it makes the man proud. But the instigation from the husband's relatives makes the man to be against it, sometimes beating the woman (Joy, 27, only wife, 3 children, Christian).

Because most women perceive that their husbands disapprove of contraceptive use, there is a degree of covert uptake. However, women are afraid that if their husbands learn of secret use, they will divorce them.

> Yes, there are situations whereby the husbands don't want their wives to use the methods, so if they use the methods secretly it can lead the husbands to divorce them once they realise that their wives are using the methods (Favour, 29, only wife, 1 child, Christian).

Social ideation

While discussions were not designed to directly ask women about social interactions as they relate to contraceptive use, our findings make it clear that such conversations occur. Several participants said that it is easier to obtain information about family planning methods passively, from family and friends. The perception of severe side effects and health risks persists because of such conversations. Yet several women spoke of telling their friends about the benefits of going to health facilities to obtain methods.

> Any woman that has used a method and benefited from it always informs her friends about the methods she has used. If her friends complain to her about problems related to childbirth, she directs them to the hospital where they also obtain the methods and counsels on how the method works (Bintu, 40, 1st wife of two, 7 children, Muslim).

The environment

The final factor that can affect the adoption of a new behaviour such as using a contraceptive method, according to the ideation model of communication, is the perceptions of community members about the environment. Elements of the environment that were included in the interview were the family planning services which were available to women as well as the quality of care.

Participants generally recognised that contraceptive methods were available to them in public health facilities, but there were concerns about stockouts.

> Injection and implant are not always available in the hospitals, so they use drugs [emergency contraception] (Huseina, 30, 3rd wife of three, 3 children, Muslim)

Another concern was cost. While commodities are generally free in Kaduna, public health facility clients often need to pay for tests, consumables, and for the insertion and removal of long-acting reversible methods. Our data show that these costs can be prohibitive.

> It can prevent because I don't know the reality of the cost of the commodity. I just relied on the false information that some women are spreading. So, if I don't have the money I can be scared to go to the hospital for the method (Blessing, 27, only wife, 4 children, Christian).

A barrier to access was also the common misconception, expressed in most of the focus groups, that health providers cannot, or should not, provide a method appropriate for an individual woman without subjecting her to blood and/or urine tests. Some women said that they will not accept a method unless such tests are undertaken. If a provider tells them that the tests are not necessary, they leave without a method. Other women do not seek services because they do not like to be tested, or because they heard that the tests are costly.

> We know that one is supposed to be tested and the people who go there are not usually tested, and the results have been bad. So how can we go, since we see women who use [the methods without test] suffer the side effect? (Elizabeth, 29, only wife, 3 children, Christian).

Providers adhering to cultural practices present an additional barrier to access. Participants perceived that while most providers appear to offer informed choice, some providers require that the woman's husband give permission. Others will only

provide a contraceptive method if a woman already has more than one child or will select the method for the woman without presenting her with sufficient information or giving her choice.

> If you come to the hospital to get a method, they will not attend to you if you don't come with your husband. So, they will tell you to come back with your husband and until he agrees before you can get a method (Aziza, 30, first wife of two, 5 children, Muslim).

> I went to collect a method, but the provider asks me how many children do I have? I replied only one and he said they only give method to a woman after she delivered three times (Thabita, 25, only wife, 3 children, Christian).

On the other hand, participants were almost uniformly happy with the quality of care they received in health facilities. With few exceptions, participants perceived health providers to be experts, friendly, informative, and helpful.

> The provider was kind to me, she was polite in her response. It was a nice experience meeting that woman (Julie, 28, only wife, 5 children, Christian).

However, information on possible side effects of contraceptive methods was often not readily available, nor was there support for managing side effects. If side effects were mentioned during counselling, the symptoms were often trivialised and the only information provided was to return to the facility to obtain a referral.

> They told me that I will experience a small change, but it is normal and after some time I be fine (Huseina, 30, 3rd wife of three, 3 children, Muslim).

Discussion

This study was designed to obtain an in-depth understanding of why women who do not want to become pregnant, are sexually active and know about contraceptive options available to them and where to get them, do not use a method. The literature from northern Nigeria shows that couples still expect to have many children for a variety of reasons, influenced by their religion, cultural norms and economic considerations (Sinai et al. 2017). Findings from this study confirm that women expect to have many children because: (1) they consider it their religious duty; (2) men want large families; and (3) increased childbearing wins favour in the competition between wives. And yet, there are clear indications that these ideations are changing. Women are beginning to understand the economic burden of having many children and the negative effect on the health of women and children. Women in Kaduna who wish to limit the number of children they have, or postpone their next birth, are faced with barriers to contraceptive use at home, in the community and at the health facility. Misconceptions aggravate these challenges.

Barriers to the intention to use a modern contraceptive method

Sinai, Igras and Lundgren (2017) assessed women's perceptions of their need for contraception and distinguished between real and perceived no need. Women who are not sexually active at all, or who have had a hysterectomy, have real no need for contraception. Women who are currently pregnant or desire a pregnancy also

do not have a need for family planning currently. However, women who think they cannot become pregnant because of myths or misconceptions relating to their fertility or that of their husband, do have a need for family planning, posing a barrier to the intention to use a method. Such misconceptions abounded in this study's findings, including, for example, women who believed they could not become pregnant because 'their eggs are far' and women who believed that pre-ejaculate is fertile, while sperm is not.

Another barrier to deciding to use a modern method is the discrepancy between real and perceived met need for family planning. The contraceptive needs of women who are using a modern contraceptive method are met. However, study findings highlight the high prevalence of, and trust in, folkloric 'methods' such as douches, concoctions and various uses of Qu'ranic verses. Women who use these methods have the contraceptive frame of mind: they have decided that they do not want to become pregnant now, have taken action to avoid pregnancy and perceive that their contraceptive needs are met. Clearly, they lack information about what works and what does not work to prevent pregnancy. The programmatic implication is that women with perceived no need and women with perceived met need will benefit from an information campaign to debunk myths, correct misinformation and provide accurate information about various modern contraceptive options. This can take many forms, such as brochures, continually running videos in facilities, community theatre, mass and social media, and more.

Previous studies have shown that many couples in Kaduna do not feel empowered to decide how many children they want to have, when to have them, and whether or not to use contraception, because only God can decide how many children a couple has and when (Sinai, Nyenwa, and Oguntunde 2018). This was confirmed by this study's findings. To alleviate this barrier to contraceptive uptake, religious leaders can be sensitised to the idea of child spacing (and how Islamic scriptures allow for it) and the importance of modern contraceptive use. They can then help spread the word to the community through their sermons, and by example through their own married life.

Barriers to turning intention to actual method use

Commonly referenced barriers to modern contraceptive uptake were: (1) opposition, (2) limited availability and/or accessibility, and (3) concerns about side effects and health risks (Sedgh, Ashford and Hussain 2016). This study assessed participant perceptions about each of these barriers.

Opposition to family planning use by the woman, her husband, or others

Women in Kaduna face opposition to contraceptive use from their husbands and their families. In the northern Nigeria setting, this presents a significant barrier to modern contraceptive use, because men are the decision makers in the family, and women often cannot obtain health services without their husband's explicit approval. This custom is deeply ingrained in local culture and evident in our findings. Women do not question it, and health providers sometimes insist on it. These findings suggest that working with men is key to increasing contraceptive use and reducing unmet need for

family planning in Kaduna. Husbands should be educated on the importance of child spacing for the benefit of women's and children's health and wellbeing. Several strategies can be employed to this effect, including community theatre and mass media, having religious leaders provide classes to men, men's support groups, and the use of men's social networks. In addition, family planning providers must be trained not to insist on a husband's permission as a prerequisite for providing services.

In the community, women who use contraception are considered promiscuous, and their husbands are perceived as weak. And yet participants said that they consider such women to be smart and courageous. This suggests that women's ideation is gradually changing and suggests an evolving society. More people approve of child spacing and contraceptive use, yet they still perceive that others are opposed. Community-level interventions, such as community dialogue (Wegs et al. 2016), may help push Kaduna over the cusp into becoming an enabling society with respect to contraceptive use.

Another perceived barrier to contraceptive use is the supposed opposition of religious leaders, both Muslim and Christian, which nudges women who wish to space their children toward traditional or folkloric approaches (perceived met need, as described above). Misconceptions about women's fertility (e.g. women are only fertile in the days immediately after their period) make periodic abstinence ineffective for women in Kaduna; misconceptions about male fertility (e.g. pre-ejaculate gets women pregnant, not sperm) make withdrawal ineffective. Folkloric approaches do not prevent pregnancy and can be potentially harmful.

Limited availability and/or access to contraception and information on how it is used

Our findings show that women in Kaduna are generally aware of contraceptive options and where to get them. And yet there are perceived barriers to obtaining methods. First, there is the common misconception that women cannot get a method (and providers should not prescribe one) without a blood and/or urine test. In the absence of such tests, women's trust in service quality, and ultimately their desire to use contraception, is weakened. Another barrier is concern about side effects or health risks of contraceptive method use; participants were happy to exchange examples about these. This barrier is exacerbated by the scarcity of information available in health facilities about possible side effects and how to manage them.

These barriers may be reduced by appropriate training (or re-training) of family planning providers to ensure that they (1) provide adequate information about methods' expected side effects and health risks, and how to manage them, (2) sensitise women on when blood and urine tests are or are not necessary, and (3) allow women to select their method in the context of informed choice.

An additional barrier to contraceptive uptake is the perceived cost of services and consumables, which may be prohibitive. When respondents in the 2013 DHS were asked why they were not using contraception, very few mentioned cost (NPC and ICF International 2014). Indeed, contraceptive commodities are formally free of charge in Nigeria. Yet our findings demonstrate that at the facility level, the costs of consumables, tests and procedures pose barriers to uptake. The Kaduna Ministry of Health should ensure that these costs are minimised or eliminated.

In conclusion, while this study demonstrates that women continue to face barriers to modern contraceptive uptake in Kaduna, there is evidence that the state is on the cusp of social change. Programmatic interventions at home, in the community and at the facility should capitalise on the changing cognitive and emotional ideation to increase demand for contraception and address barriers to contraceptive uptake.

Notes

1. Calculations of population-level estimates of unmet need consider pregnancy intentions in the next two years. The Sinai et al. (2017) framework considers pregnancy intentions in the next year, because of the fluidity of unmet need. We adopted their approach.
2. To protect participant confidentiality, all respondent names are pseudonyms.
3. The process involves writing sacred verses in ink on a slate and then rinsing it off the slate with cold water meant for drinking. The mixture of ink and water is then given to the supplicant to drink.
4. By 'far eggs', the participant meant that the woman does not ovulate frequently.
5. Ramadan is the ninth month of the Muslim year, during which strict fasting is observed from sunrise to sunset.

Disclosure statement

The authors do not have any conflict of interest.

Funding

The study was funded by the Bill and Melinda Gates Foundation. The opinions presented are the authors', and do not necessarily reflect the views of the funding organisation.

ORCID

Adenike Jimoh http://orcid.org/0000-0003-0291-2882

References

Ahmed, S., Q. Li, L. Liu, and A. Tsui. 2012. "Maternal Deaths Averted by Contraceptive Use: An Analysis of 172 Countries." *The Lancet* 380 (9837): 111–125. doi:10.1016/S0140-6736(12)60478-4

Ankomah, A., J. Anyanti, S. Adebayo, and A. Giwa. 2013. "Barriers to Contraceptive Use among Married Young Adults in Nigeria: A Qualitative Study." *International Journal of Tropical Disease & Health* 3 (3): 267–282. doi:10.9734/IJTDH/2013/4573

Bradley, S. E. K., T. N. Croft, J. D. Fishel, and C. F. Westoff. 2012. *Revising Unmet Need for Family Planning*. DHS Analytical Studies No. 25. Calverton, MD: ICF International. https://dhsprogram.com/pubs/pdf/AS25/AS25%5B12June2012%5D.pdf

Cleland, J., A. Conde-Agudelo, H. Peterson, J. Ross, and A. Tsui. 2012. "Contraception and Health." *The Lancet* 380 (9837): 149–156. doi:10.1016/S0140-6736(12)60609-6

Conde-Agudelo, A., A. Rosas-Bermudez, F. Castano, and M. H. Norton. 2012. "Effects of Birth Spacing on Maternal, Perinatal, Infant, and Child Health: A Systematic Review of Causal Mechanisms." *Studies in Family Planning* 43 (2): 93–114. https://www.k4health.org/sites/default/files/conde-agudelo_2012.pdf doi:10.1111/j.1728-4465.2012.00308.x

Hardee, K., K. Newman, L. Bakamjian, J. Kumar, S. Harris, M. Rodriguez, and K. Willson. 2013. *Voluntary Family Planning Programs that Respect, Protect, and Fulfill Human Rights: A Conceptual*

Framework. Washington, DC: Futures Group. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjPloTXgrPdAhUPLVAKHSrYC98QFjAAegQIARAC&url=https%3A%2F%2Fwww.engenderhealth.org%2Ffiles%2Fpubs%2Ffamily-planning%2FVoluntary_Family_Planning_Programs_A_Conceptual_Framework&usg=AOvVaw1e1YylxA2q2pkfweMj7L7e

Health Communication Capacity Collaborative (HC3). 2014. *Ideation: An HCS Research Primer*. Baltimore, MD: HC3, Johns Hopkins Center for Communication Programs. https://healthcommcapacity.org/hc3resources/ideation-hc3-research-primer/

Kaduna State Government. 2016. *Costed Implementation Plan for Family Planning, 2016–2018*. Kaduna, Nigeria: Kaduna State Government. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwid-taIr7zhAhUMjlkKHWZ5B2IQFjAAegQIBRAC&url=https%3A%2F%2Fwww.familyplanning2020.org%2Fsites%2Fdefault%2Ffiles%2FPalladium-Kaduna-CIP-and-Activity-Matrix_9.28gs.pdf&usg=AOvVaw04VoJxKRFQaeJl_X6Z7qw_

Khalid, S. 2004. Socio-Economic and Cultural Roots of Reproductive Health Care Problems in North-Western Nigeria. Sokoto, Nigeria: Usmanu Danfodiyo University. http://www.gamji.com/article6000/news6048.htm

NBS (National Bureau of Statistics) and UNICEF (United Nations Children's Fund). 2017. *Multiple Indicator Cluster Survey 2016-2017, Survey Findings Report*. Abuja, Nigeria: National Bureau of Statistics and United Nations Children's Fund. https://www.unicef.org/nigeria/reports/multiple-indicator-cluster-survey-2016-17-mics

NPC (National Population Commission) [Nigeria] and ICF International. 2014. *Nigeria Demographic and Health Survey 2013*. Abuja, Nigeria and Rockville, MD: NPC and ICF International. http://dhsprogram.com/pubs/pdf/FR293/FR293.pdf

NPC (National Population Commission) [Nigeria] and ICF International. 2019. *Nigeria Demographic and Health Survey 2018: Key Indicator Report*. Abuja, Nigeria and Rockville, MD: NPC and ICF International. https://dhsprogram.com/publications/publication-PR118-Preliminary-Reports-Key-Indicators-Reports.cfm

PMA2020. 2018. "PMA2020/Kaduna, Nigeria April – May 2018." Kaduna Family Planning Brief. https://www.pma2020.org/sites/default/files/NG-Kaduna-R5-v3-20180923.pdf

Sedgh, G., L. S. Ashford, and R. Hussain. 2016. *Unmet* Need for Contraception in Developing Countries: Examining Women's Reasons for Not Using a Method. New York: Guttmacher Institute. https://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&ved=2ahUKEwjT78-9i7PdAhUKLIAKHdOCBuoQFjAAegQIABAC&url=https%3A%2F%2Fwww.guttmacher.org%2Fsites%2Fdefault%2Ffiles%2Freport_pdf%2Funmet-need-for-contraception-in-developing-countries-report.pdf&usg=AOvVaw3DyuakaJ_s5d55r6r1cH05

Sinai, I., J. Anyanti, M. Khan, R. Daroda, and O. Oguntunde. 2017. "Demand for Women's Health Services in Northern Nigeria: A Review of the Literature." *African Journal of Reproductive Health* 21 (2): 96–108. doi:10.29063/ajrh2017/v21i2.11

Sinai, I., S. Igras, and R. Lundgren. 2017. "A Practical Alternative to Calculating Unmet Need for Family Planning." *Open Access Journal of Contraception* 8: 53–59. doi:10.2147/OAJC.S137705

Sinai, I., J. Nyenwa, and O. Oguntunde. 2018. "Programming Implications of Unmet Need for Contraception among Men and Young Married Women in Northern Nigeria." *Open Access Journal of Contraception* 9: 81–90. doi:10.2147/OAJC.S172330

Wegs, C., A.A. Creanga, C. Galavotti, and E. Wamalwa. 2016. "Community Dialogue to Shift Social Norms and Enable Family Planning: An Evaluation of the Family Planning Results Initiative in Kenya." *Plos One* 11 (4): e0153907. doi:10.1371/journal.pone.0153907

Yusuf, B. 2005. *Sexuality and the Marriage Institution in Islam: An Appraisal*. Lagos, Nigeria: Africa Regional Sexuality Resource Centre. https://pdfs.semanticscholar.org/ffc6/2fb4c1ebb517ad6d489ad449605fc832ce63.pdf