ORIGINAL RESEARCH ARTICLE

Perceived Risks Associated with Contraceptive Method Use among Men and Women in Ibadan and Kaduna, Nigeria

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Abstract

Research shows that side effects are often the most common reason for contraceptive non-use in Nigeria; however, research to date has not explored the underlying factors that influence risk and benefit perceptions associated with specific contraceptive methods in Nigeria. A qualitative study design using focus group discussions was used to explore social attitudes and beliefs about family planning methods in Ibadan and Kaduna, Nigeria. A total of 26 focus group discussions were held in 2010 with men and women of reproductive age, disaggregated by city, sex, age, marital status, neighborhood socioeconomic status, and—for women only—family planning experience. A discussion guide was used that included specific questions about the perceived risks and benefits associated with the use of six different family planning methods. A thematic content analytic approach guided the analysis. Participants identified a spectrum of risks encompassing perceived threats to health (both real and fictitious) and social concerns, as well as benefits associated with each method. By exploring Nigerian perspectives on the risks and benefits associated with specific family planning methods, programs aiming to increase contraceptive use in Nigeria can be better equipped to highlight recognized benefits, address specific concerns, and work to dispel misperceptions associated with each family planning method. *(Afr J Reprod Health 2015; 19[4]: 31-40).*

Keywords: contraceptives, family planning, side effects, Nigeria, qualitative

Résumé

La recherche montre que les effets secondaires constituent souvent la raison la plus courante pour la non-utilisation de la contraception au Nigeria; cependant, la recherche à ce jour n'a pas exploré les facteurs sous-jacents qui influent sur les risques et profitent des perceptions associées aux méthodes contraceptives spécifiques au Nigeria. Une conception de l'étude qualitative à l'aide des discussions à groupe cible a été utilisée pour explorer les attitudes sociales et les croyances au sujet des méthodes de planification familiale à Ibadan et Kaduna, au Nigeria. Au total, 26 discussions à groupe cible ont eu lieu en 2010 avec les hommes et les femmes en âge de procréer, ventilées par la ville, le sexe, l'âge, l'état civil, la situation socio-économique de l'environnement, et - pour les femmes seulement – l'expérience de la planification -familiale. Un guide de discussion a été utilisé qui comprenait des questions spécifiques sur les risques et les avantages perçus associés à l'utilisation de six méthodes de planification familiale différentes. Une approche analytique de contenu thématique a guidé l'analyse. Les participants ont identifié un éventail de risques englobant les menaces perçues pour la santé (à la fois réels et fictifs) et les préoccupations sociales, ainsi que les avantages associés à chaque méthode. En explorant les perspectives nigérianes sur les risques et les avantages associés aux méthodes de planification familiale spécifiques, les programmes visant à accroître l'utilisation des contraceptifs au Nigeria peuvent être mieux équipés pour mettre en évidence les avantages reconnus, pour répondre aux préoccupations spécifiques, et pour tâcher à dissiper les malentendus liés à chaque méthode de planification familiale. *(Afr J Reprod Health 2015; 19[4]: 31-40).*

Mots-clés: contraceptifs, planification familiale, effets secondaires, Nigeria, qualitative

Introduction

Despite advances in safety and effectiveness, contraception continues to be associated with a multitude of risks, both real and perceived. Using any of the current modern contraceptive methods available is potentially accompanied by a host of various side effects[1]. Whether real or fictitious, risks associated with each method represent a substantial barrier for individuals and must be

taken into account when considering the context in which individuals evaluate the benefits and hazards of using contraception.

Method-related issues, including health concerns and side effects, affect a variety of decisions related to contraception—including whether to use contraception at all. In 28 out of 34 developing countries, method-related issues are the second most common category of reasons for not using contraception among women, after fertility-related reasons[2]. Among women with an unmet need for contraception, one third cites method-related issues as the primary reason for non-use[3]. Concerns about health issues and side effects not only affect the motivation to use or not use contraception but also influence method choice and contraceptive discontinuation[4,5]. In developing countries, method-related reasons, including those related to side effects, comprise the second highest rated category of reasons for discontinuation among women who have used contraception in the past five years but are not currently using, eclipsed only by fertility-related reasons[2]. Among women who discontinue during the first year of contraceptive use for reasons other than a desire to become pregnant, the main reason is often concerns about health or the experience of side effects[6].

In Nigeria, increasing use of contraception remains a formidable challenge in the face of a high total fertility rate (5.7 births per woman) and a substantial unmet need for contraception (estimated at 20.2% of married women). Modern contraceptive prevalence remains at a low 10.5% among both married and unmarried sexually active women, with the male condom as the most popular modern method (5% currently using). Injectables and pills (2%) comprise the other most common methods, with lactational amenorrhea, IUDs, and sterilization making up the remaining method mix (2% combined). Five percent of women use traditional methods[7].

Reasons for contraceptive nonuse are varied, encompassing both social and biological spheres[7-9]. Though national estimates place method-related reasons behind fertility-related concerns and opposition to use as the primary reasons Nigerian couples do not use family planning strategies[7], more local and targeted research tells a different story. Studies conducted in Nigeria among college students, married women, and urban women show the most common reason for nonuse is fear of side effects[8,10-11]. Research to date has not explored the underlying factors, attitudes, and perceptions that influence individual concerns about the health, safety, and risks associated with the use of specific contraceptive methods. Drawing on focus group discussions, the objective of this study was to explore urban Nigerians' perceptions regarding specific contraceptive methods in order to inform programs aimed at increasing contraceptive use.

Methods

Study design

Qualitative methods—specifically focus group discussions—were used to obtain information on social attitudes and beliefs regarding family planning as opposed to individual experiences. The discussions were structured by a topic guide that included specific questions about the perceived risks and benefits associated with the use of six different family planning methods: condom, pill, injectable, IUD, sterilization, and fertility awareness methods.

Study population

Study participants were men and women of reproductive age who were residing in Ibadan and Kaduna, Nigeria. Ibadan is located in southwestern Nigeria and is the capital of Oyo State. Kaduna, the capital of Kaduna State, is located in northwestern Nigeria. The focus group discussions were disaggregated by city, sex, age (18-24 years and 25-49 years), marital status, socioeconomic status of resident neighborhood, and family planning experience/use (for women only) (see Table 1).

Table 1: Focus Group Discussions by Attribute, Ibadan and Kaduna, Nigeria, 2010

City	Sex	Age	Marital Status	Neighborhood Socioeconomic Status	Family Planning Use
Ibadan	Female	18-24 years	Not Married	Low	
			Married	Low	Never Current
				Middle	Never Current
		25-49 years	Married	Low	Never Current
				Middle	Never Current
	Male	18-24 years	Not Married	Low	
			Married	Low Middle	
		25-49 years	Married	Low Middle	
Kaduna	Female	18-24 years	Married	Low	Never Current
				Middle	Never
		25-49 years	Married	Low	Never Current
				Middle	Never Current
	Male	18-24 years	Not Married	Low	
			Married	Low Middle	
		25-49 years	Married	Low	

Contraceptive users were recruited at family planning facilities through the use of a screening form to determine eligibility. To recruit never-users, a similar screening form was used at the community level with the assistance of community leaders who solicited potential study participants. After study recruitment, verbal informed consent was obtained from all study participants before proceeding. A total of 26 focus group discussions were conducted in the two cities in September and October of 2010.

Procedures

Ethical approval to conduct the study was obtained from the Institutional Review Board at the Johns Hopkins Bloomberg School of Public Health in Baltimore, Maryland, and the Obafemi Awolowo University in Ile Ife, Nigeria. Additional approvals were obtained from the state Ministry of Health in the two states where the study was conducted.

Data analysis

All discussions, with the consent of the

participants, were audiotaped, and the recordings were transcribed verbatim into the local languages and then into English. Data sorting and analysis were carried out using *ATLAS*.ti software and group level matrices. In addition to using the topic guide to develop the codes, all transcripts were read to identify emerging themes and allow for the generation of new codes based upon the participants' own words. The data analysis was guided by the thematic content analysis approach[12].

Results

Condom

Nearly every focus group mentioned the fact that condoms can break, burst, tear, or slip off during sex. The consequence of condoms breaking during intercourse weighed heavily upon respondents, even beyond the repercussions of an unintended pregnancy; since the husband operates under the assumption that he had protected sexual intercourse with his wife, a resulting pregnancy can lead to suspicion of a wife's infidelity and subsequently, in some situations, divorce.

> *Sometimes it (the condom) can also have a hole and some sperm escapes into the woman. The husband will believe he used a condom and the wife should not get pregnant. He may believe that he is not responsible for the pregnancy.*

Female, 24 years, married, 3 children, middle SES, Ibadan

There was a general sense that not all condoms are equal—that the "original" condom is the best but is hard to find "nowadays." The "fake" condoms that were available are perceived to be made of substandard material and could therefore break or tear more easily, leading to unintended pregnancy or the sharing of sexually transmitted infections.

> *The ones available are not good enough and HIV/AIDS virus can penetrate through the substandard ones. Even many homes have been scattered due to condom failure.*

Male, 35 years, married, 0 children, low SES, Ibadan

Participants also made comments in regards to the effect of condoms on sexual pleasure; however, in contrast to the usual complaints about reduced sexual pleasure with condom use, comments more often related to females feeling reduced pleasure, or even pain, when using condoms rather than comments related to males feeling reduced sensation.

> *It (condom use) always makes the woman not enjoy sex; she only enjoys it when she feels the sperm inside her.*

Female, 25 years, married, 3 children, family planning nonuser, low SES, Kaduna

In addition to the negative comments about condom use for family planning, there were quite a few positive comments as well. In fact, men made twice as many positive comments about condoms compared to women. Participants expressed the absence of side effects and ease of use associated with condoms as major benefits of using condoms. Participants also noted the dual protection, from pregnancy and sexually transmitted diseases, offered by condoms as a positive aspect of this method.

> *Instead of the lady unnecessarily risking her life (by using hormonal methods), I will rather suggest that the husband should be using condoms whenever they want to have sex without the mindset of having children.*

Male, 22 years, married, 3 children, low SES, Ibadan

Oral Contraceptive Pill

The dominant reaction to questions about the risks of oral contraceptive pill (pill) use for family planning was related to the method of administration. Many study participants cautioned that a woman must remember to take the pill every day. The possibility of forgetting to take the pill,

even once, was presented as a major risk of pill use, as it can result in an unwanted pregnancy.

> *Personally, I cannot use the pill because once you miss one day, it becomes dangerous.*

Female, 25-49 years, married, family planning nonuser, middle SES, Kaduna

Men and women in the focus groups commented on the risks and the safety of using pills in nearly equal measure. Study participants often mentioned the "side effects" or health risks of pill use without delving into specifics. Younger participants, females, Ibadan residents, and family planning nonusers more often noted the general, versus specific, risks of pill use.

> *Pill is not good because it usually has side effects and this is always terrible.*

Male, 24 years, married, 1 child, middle SES, Kaduna

Only a few study participants made comments about the specific side effects associated with pills (menstrual disruptions, weight gain, and abdominal pain).

Study participants who commented on the benefits of pill use, especially young participants and respondents from Kaduna, tended to mention the safety and ease of pill use. Specific comments about the pill's benefits included the fact that unlike the condom, it is not intercourse dependent; that the pill is simple to discontinue; and that upon discontinuation, fertility returns quickly.

> *…we were told that condom is the best bet as regards to family planning but some people after foreplay get so carried away that they even forget to use the condom so the pills can still work in such a situation without so much risk.*

Male, 18-24 years, married, low SES, Ibadan

Though myths and misperceptions with regard to pill use were not very common, comments about the pill did include some extreme views. While some participants misperceived that pills, especially if used over a long duration of time, can cause infertility, others described how pills would "sediment" in the stomach or cause a "swelling stomach" or "store up" in the body. These latter misconceptions were only made by Ibadan participants. Finally, the most obscure myths mentioned were that the pill can lead to a "drug addiction" or "destroy body immunity," both of which were comments from Kaduna participants.

Injectable

On the whole, participants regarded using injectables as somewhat low risk. Two positive themes about injectable use emerged, namely that it is easy to remember to use and it is very flexible; one can use the injectable for a short period of time and stop easily or switch to another method without any problems.

> *It (injectable use) is better because you can use it for a while and later stop and try other methods without any problems.*

Female, 24 years, married, 5 children, family planning nonuser, low SES, Kaduna

To be clear, however, side effects associated with injectable use did surface, particularly in regards to changes in the menstrual cycle. Such changes included excessive bleeding, painful menstruation, or amenorrhea. Only female participants spoke of changes to the menstrual cycle, and participants from Kaduna were more likely to note this issue. Participants also mentioned, albeit less frequently, fluctuations in weight.

Three female groups discussed the possibility of failure with injectable use, citing personal experiences or anecdotes from others. A few others were concerned that there is a risk that "unskilled health personnel" are the ones who give the injections. There was some discussion about a delayed return to fertility with injectable use; on balance, however, there were also comments on the ease with which one can become pregnant after discontinuing injectable use. Males and participants in Ibadan tended to report injectable myths more often than other participants. Some of the misperceptions noted, although rarely, included "permanent barrenness," cancer, expedited aging, using expired injection solutions,

piercing veins, amenorrhea causing health problems, excessive bleeding leading to death, risks to a baby's health or infant death, and a weakened immune system.

> *Injectables make menses to cease and this portend a great danger for the woman's health because of the accumulation of waste in the body resulting from cessation of the menstrual period.*

Female, 25 years, married, 2 children, family planning nonuser, middle SES, Ibadan

IUD

The comments by the study participants with regard to the risk of IUD use were many and varied. However, the most common comments about IUD use were positive: that the IUD is safe, has no side effects, doesn't cause infertility, and is easy to remove. Over half of the groups made positive comments in response to questions about IUD use, although many lacked specific details. In contrast, a group of young family planning users in Ibadan noted the discouraging advice they had received from health providers in reference to IUDs.

Study participants expressed some concern over the delicate procedure of inserting and removing the IUD. Given the high importance put on fertility in Africa, there appears to be a strong fear associated with tampering with reproductive organs and the effect that might have on one's ability to reproduce.

> *I think the IUD is most risky because putting it in and removing it is an intricate procedure that could be very dangerous to the woman.*

Male, 30 years, married, 4 children, middle SES, Kaduna

The insertion procedure and subsequent placement of the IUD drove many of the concerns regarding IUD use. Individuals perceived that the IUD would be placed inside the vagina, not in the uterus. This perception led many to believe that through either incorrect placement by the provider, natural movements, or sexual intercourse, the IUD might be pushed into the uterus and cause complications for the woman. Some terms used to describe the perceived movement of the IUD once inserted were "stuck," blocking the woman's vagina, "drop inside the woman," "stocked inside," and "fall out."

> *If the IUD is not well fixed, it can shift during sexual intercourse and pregnancy may occur.*

Female, 37 years, married, 7 children, family planning nonuser, middle SES, Ibadan

Participants (particularly males) also raised concerns that the IUD would be an "obstruction," "irritant," or "cause discomfort" during sex. Some participants thought the IUD was so risky it could lead to "death," either through the need for an operation to remove the device or as a result of the associated health complications.

Sterilization

Sterilization represented a particularly risky method of contraception. Participants responded to questions about the risks of sterilization with unease, expressing that it is "dangerous," "irreversible," and if all children die the person would remain childless.

> *It is half castration. If an accident occurs and all the children die, what would now happen to the family?...You heard the sound that there may be rain you then pour away the water in your container, what if it didn't rain again?*

Male, 22 years, married, 2 children, middle SES, Ibadan

A few participants, particularly among those from Kaduna, mentioned "infection," "abdominal pain," and "ectopic pregnancies" as side effects of sterilization. Study participants also voiced concerns about the incompatibility of sterilization and religious teachings.

A variety of concerns came up during the discussions about risks associated with

sterilization—the most common being death. These comments were made mostly by Ibadan males.

> *Nigerian hospitals are not reliable. I have seen somebody that drove himself to the hospital for a minor operation and did not survive the operation. Why will I risk my life because of family planning?*

Male, 24 years, married, 2 children, middle SES, Ibadan

Some study participants mentioned that sterilization is "murder," "it can lead to HIV," and could cause a "loss of the function of the spinal cord." Females noted that it is a hysterectomy or is riskier than a hysterectomy. These remarks were not very common, but they do reflect a certain level of misunderstanding and concern about sterilization procedures and the effects of sterilization.

> *That part of the man's reproductive system that is "tied" will just be getting unnecessarily big!*

Male, 23 years, married, 1 child, low SES, Ibadan

> *It could also affect the health of the man because of accumulated sperm in the body - such a man will not be able to release real sperm. It is only water that will be released.*

Male, 22 years, married, 1 child, middle SES, Ibadan

Despite the fact that the majority of comments about sterilization were negative, there were a few respondents who mentioned the positive aspect of sterilization, mainly that it is a good family planning method for a person who doesn't want any more children.

Fertility Awareness Methods

In participants' discussion of fertility awareness methods, comments on the risks outnumbered comments on the benefits. The only risk mentioned was failure, and this was said to occur either through a miscalculation of the fertile period due to changes in the menstrual cycle or if the husband wants to have sex during the fertile period. Only females mentioned the second issue. Overall, through the comments about the risks of using fertility awareness methods, the study participants showed accurate knowledge about the menstrual cycle and corresponding fertile periods; however, there were more comments in Ibadan about failure through menstrual cycle changes or miscalculations, possibly indicating a better understanding of the menstrual cycle among participants in Ibadan than Kaduna.

> *It is somewhat risky because everything changes. Her menstrual cycle may change as well. If they have unprotected sex during this time, it could result in pregnancy.*

Male, 24 years, married, 5 children, middle SES, Ibadan

> *If your husband wants to have sex during your unsafe period, you will not want him to go outside (infidelity) and that can result in pregnancy.*

Female, 23 years, married, 2 children, nonuser of family planning, middle SES, Ibadan

The comments regarding the benefits of fertility awareness methods ranged from "free," "convenient," "natural," and "no side effects."

> *It (fertility awareness methods) has no side effects and is convenient. You enjoy the sex and yet do not fear pregnancy. It is the best and was created by God Himself.*

Female, 27 years, married, 3 children, family planning nonuser, low SES, Kaduna

Discussion

By exploring Nigerian perspectives on the risks and benefits associated with specific family planning methods, programs aiming to increase contraceptive use in Nigeria can be better equipped to highlight recognized benefits, address specific concerns, and work to dispel any misperceptions associated with each family planning method. As of 2008, only 5.9% of urban Nigerian women reported having discussed family

planning with a visiting health worker, and only 8.6% reported discussing family planning with a provider at a health center[7]. In the face of low contact with providers, representing both missed opportunities for information exchange and structural challenges in dispelling misinformation, this research provides findings that aid in understanding the challenging context of increasing family planning use in urban areas of Nigeria. As a result of this detailed, method-specific information, programs will likely have greater success at increasing contraceptive use in Nigeria.

The consequences of forgetting to take the pill were greatly exaggerated among the study participants. This could potentially reflect misinformation from family planning service providers about the consequences of a missed pill; alternatively, it could imply confusion about the difference in severity of consequence of missed pills when using combined oral contraceptive as compared to progestin-only contraceptive pills on the part of users and/or service providers.

Comments about the possibility of condoms—the most popular modern contraceptive method in Nigeria[7]—breaking occurred frequently and to a greater degree than has been documented in previous research[13,14], indicating there are exaggerated fears of this rare event happening among many Nigerians. Widespread fears of condoms breaking during sexual intercourse are certainly a discouraging finding for HIV prevention strategies. Potentially the fears of condoms breaking are inflated because the consequences are very grave for women. However, broken condoms are usually not a secret as both parties know when it happens, so increased spousal communication might overcome this problem. Programs are needed to promote spousal communication around and during sexual intercourse[15], address concerns about condom quality, and demonstrate accurate condom use to reduce the risk of breakage. Finally, the intriguing complaint about condoms reducing sexual pleasure for women as opposed to men most likely warrants more targeted research on this topic, though reduced sexual pleasure is certainly a recurrent challenge to condom use[13,16,17].

In this study, injectables, used by 2% of Nigerian women of reproductive age[7], were perceived as very low risk. The main notable fear was that of unskilled workers providing injections. It should be noted that this research pre-dates large campaigns around uniject-delivered injectables from a community-based distribution model that has since been introduced. As a result of these campaigns and the dynamism surrounding this method in particular, attitudes and perceptions around this method may have changed since these focus groups were conducted, though research in this area is ongoing. As the World Health Organization continues to promote community-based distribution of injectable family planning methods, this area of mistrust should be addressed directly in programs aiming to increase family planning use in Nigeria, given the promise it holds for family planning service delivery[18].

Although many respondents held positive attitudes toward the IUD, the lack of specific detail given suggests a low awareness and limited understanding of IUDs. In fact, both the young and older married females who do not use family planning in the lower SES community in Kaduna commented that they had never heard of nor seen the IUD before. This low awareness possibly reflects the bias of family planning health providers toward certain methods and potentially an age bias in family planning service delivery, as has been documented elsewhere[19-24]. This could be a finding specific to IUDs, or it could foreshadow general biases of health providers in family planning provision more broadly in Nigeria.

Nevertheless, since the majority of comments in relation to the IUD were positive, this could potentially be a great long-acting, temporary method to promote in Nigeria. The main area for programs to focus on in regards to IUD promotion is educating Nigerians about the process of insertion, as well as the location of the IUD once inserted, to dispel the confusion about the procedure.

The most extreme misconceptions were

those regarding sterilization. Promoting sterilization in Nigeria should begin with a campaign to increase knowledge about the actual sterilization procedures in both males and females. Increasing contraceptive use in Nigeria via sterilization will be a challenge; a program would likely have more success promoting injectable and IUD use. Thus, it might be more fruitful to promote sterilization once the contraceptive prevalence rate has increased and users are more comfortable using other modern methods. Furthermore, since completion of family size is a basic prerequisite for this method, and fear of its irreversibility and surgery in general are common in Nigeria, educational efforts that emphasize the safety of the procedure need to be carefully tailored to this setting[25,26].

Overall, participants in these focus group discussions exhibited a high awareness that modern contraceptive methods have side effects; however, participants had inadequate knowledge about the specific side effects associated with each method. The notable exception is injectables, as the common side effects with this method were noted by many discussants and it was perceived overall as low risk. The surface-level discussion about risks may signify a general awareness of methods and the existence of side effects without accurate, detailed information about the actual side effects that may result from each method's use. In addition, study participants did not discuss an awareness that contraceptive side effects often lessen or disappear with time.

This study has several limitations. The study was only conducted in urban areas of Nigeria, and in only two cities. The focus group discussions were disaggregated by so many attributes that it is difficult to identify meaningful differences between such finely categorized groupings. The questions about sterilization were not specific to male or female sterilization, so it is often difficult to discern whether the comments were in regards to one or the other, or both. Similarly, the questions on fertility awareness methods were not specific to each type of fertility awareness method. Questions about implants were not included in the topic guide. In addition, only one of the researchers coded and analyzed the data. Finally, given the type of study and location of study, the findings of this study are not generalizable.

In Nigeria, understanding the perceived risks and benefits associated with specific family planning methods can further illustrate the larger domain of concerns about health and side effects that influences uptake and continuation of family planning. In addition, this information can aid in designing effective communication programs to quell misperceptions and promote dissemination of accurate information. The findings presented here depict the perceptions of urban Nigerians around family planning methods, and illustrate the need for improved method-specific communication and counseling in order to empower Nigerians to safely and successfully plan their families.

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Contributions of Authors

JS conceived and designed the study with input from AS. AS monitored data collection and analysis. HMS analyzed the data and led the manuscript preparation. All authors contributed to and approve the manuscript.

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