ORIGINAL RESEARCH

The Columbia University
JOURNAL of GLOBAL HEALTH

Factors Influencing Family Planning Use in the Buyende District of Uganda

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ABSTRACT ***Introduction:*** The goal of this study was to identify use of family planning (FP) in the Buyende district of Uganda, and what factors influence its use or lack of use. ***Methods:*** Study participants included 60 women from 18 to 49 years old who lived in the Buyende District of Uganda. This was a mixed-methods study. Descriptive statistics and chi-squared analysis were performed on the survey data to identify factors associated with modern FP use. Qualitative analysis, consisting of an iterative coding process, was used to identify themes that arose in focus groups regarding barriers to FP use. ***Results:*** Most participants were 20-24 years old (26.7%), married (86.7%), had a primary education (86.7%), and had a mean parity of 5.23 (range 0 to 14). One third of survey participants were currently using a form of modern contraception, and women who spoke to a healthcare provider in the last 12 months about FP were significantly more likely to be using a form of modern contraception (46.2% vs 10.5%, p=0.016). The most common barriers to FP use were side effects (71%), fear of husband disapproval (19.4%), and lack of access (16.1%). Qualitative analysis of focus groups demonstrated 9 major themes that emerged as barriers to FP: misinformation/misconceptions about FP; concerns about side effects; negative community perceptions of FP; lack of education; male opposition to FP; use of traditional methods; distance to health facilities; financial concerns; FP going against religious beliefs. ***Discussion:*** It is important to continue to address not only the material access to FP and lack of education, but also the gender inequalities that are foundational to the lack of usage where desired.

KEY WORDS family planning barriers, Uganda, contraception, reproductive justice

INTRODUCTION

The Busoga region is the second most fertile region in Uganda, with a fertility rate of 6.1 births per woman, compared to the national mean of 5.4 births[1]. This lack of birth spacing is associated with increased morbidity, poor pregnancy outcomes, and increased infant and child mortality[2]. One out of four pregnancies in Uganda occurs in teenagers aged 15-19[3], and more than half of all pregnancies in Uganda are unintended[4]. Additionally, 63% of unmarried sexually active women 15-19 and 43% of unmarried sexually active women 20-24 do not use a modern contraceptive method[5]. There is therefore a substantial unmet need for family planning services in this region of Uganda. Addressing this unmet need would reduce unwanted pregnancies, meet the fertility goals of women, and improve overall community health[5].

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Furthermore, Uganda has one of the highest maternal mortality rates in Eastern Africa at 343 maternal deaths per 100,000 live births in 2015[6]. Increased use of contraception would also decrease the maternal mortality in the region, as one out of every four maternal deaths in Uganda is due to unsafe abortion complications[4]. According to a trusted community leader, there is an individual in Iganga, Uganda who performs abortions despite it being illegal in the country. However, Iganga is about a two hour drive from the Buyende District where this study was conducted, making transportation a significant barrier. Additionally, if individuals can get to him for the procedure, it costs 100,000 UGX (about $30). However, individuals in the villages make a mean of 10,000 UGX (about $3) a month, making this not a viable option for most individuals. Therefore, a lack of access to abortion exasterbates the importance of meeting the unmet need for family planning.

A primary obstacle to healthcare in Uganda is accessibility, as individuals live a mean of 3-5 km from the nearest health facility[7]. However, there are a number of barriers beyond accessibility that limit utilization of contraception, including fear of side effects or infertility, and social or familial opposition[8]. Furthermore, lack of female empowerment is also a barrier as some women do not have the sexual autonomy to make reproductive health decisions independently, and doing so may put them at risk for intimate partner violence[3]. This is perpetuated by male-centric societal ideals that value having many children, and fear that contraception promotes promiscuity and extramarital sexual relations among women[5]. These values trickle down from gender inequality in Uganda at large that are evident in social, economic, and political spheres[9].

Empower Through Health is a non-profit organization that founded the Mpunde Health Center located in the Buyende District of Uganda. The health center does have a supply of implants and injections as options for contraception, but they are not offered for free, and these costs are often insurmountable for individuals. Marie Stopes, a partnering UK charity, visits the clinic every three months and provides almost all modern contraceptive options free of charge. This increases access for community members, but problems arise if an individual needs follow-up care after the outreach event, since that care at the clinic can still be financially prohibitive. This study aims to determine what methods of family planning are being used by women in the Buyende District, and the factors influencing their use of family planning.

METHODS

This study was approved by the Institutional Review Board at the University of Michigan and TASO IRB of Uganda. The study population included women between 18 and 49 years old who lived in the Buyende District of Uganda. This was a mixed methods study that consisted of a survey and focus groups. Ten women were surveyed in six villages, for a total of 60 survey responses. For each village we met with a member of the village health team (VHT) and used their household registries to randomly select individuals. The VHT walked with us to each house to show us where each individual lived and establish trust with community members regarding our presence and honest intentions.

All surveys were administered with two students from Uganda Christian University who spoke Lusoga, the local language. The informed consent document was thoroughly discussed with participants prior to conducting the survey. The survey was conducted verbally and time for adequate discussion was allowed to ensure understanding and that the appropriate responses were recorded. The survey was completed using Kobo Tools, which allowed surveys to be collected and stored without internet access or cellular service, since internet was unavailable and service was unreliable in the villages. Survey data included demographics, use of family planning or reasons one did not use family planning, and to gauge how often individuals spoke with healthcare professionals about family planning. Participants' ages were recorded using categories of five years (ex. 20-24 years) with the exception of the 18-19 year old group. This was to account for community members often not knowing their exact age. Additionally, marriage recognized by the law is very rare in the villages. A cohabiting relationship is considered marriage by individuals in the community and in this survey.

Descriptive statistics were used to summarize the survey data. Frequencies and percentages were calculated for categorical variables, and means were calculated for continuous variables. Responses regarding use of family planning were aggregated into a new "modern contraceptive use" variable. Modern methods used by participants included oral contraceptive pills, implants, injections, and female sterilization. Natural methods that were utilized included breastfeeding and cycle tracking. Participants who either did not use a method or used only a natural method, were grouped into not using a modern method. Participants who did use a modern method, or

responded that they used both modern and natural methods were grouped into using modern methods. Then, a series of chi squared tests were used to determine if there were any significant relationships between demographic and healthcare access variables and whether a participant used modern contraception.

At the conclusion of the surveys, focus groups were conducted in Mpunde where the clinic is located, under the assumption that those recruited for the focus groups would be representative of women in the surrounding villages due to resource and time constraints. A VHT from Mpunde recruited women in the village for each focus group: one that was held for 18-29 year old women, and one for women 30-49 years old. A snowball sampling technique was used, where women who agreed to participate invited their friends or neighbors to come as well. All recruitment had to be done verbally and in person on the morning of the focus groups due to lack of universal communication methods. Focus groups were recorded using VoiceMemos and subsequently uploaded to Google Dropbox when internet access was available. The Uganda Christian University students aided in the translation and transcription of the focus groups.

Two study members reviewed the transcripts to identify barriers to family planning use. A codebook containing 9 keyword-phrases was collaboratively developed based on the barriers identified through an iterative process. Both focus groups were then coded using the formal codes. These codes included: 1) misinformation/ misconceptions about family planning, 2) concerns about side effects, 3) negative community perceptions of family planning, 4) lack of education, 5) male opposition to family planning, 6) use of traditional methods, 7) distance to health facility, 8) financial concerns, and 9) family planning going against religious beliefs. A comment could be coded with more than one keyword-phrase if it represented multiple ideas.

RESULTS

Table 1 outlines the demographics of study participants. The largest age group was 20-24 years old (26.7%), and the mean parity was 5.23, with a minimum of 0 and a maximum of 14. The majority of participants were married (86.7%) and most commonly identified with being Muslim (33.3%), Anglican (31.7%), or Catholic (23.3%). Most participants had a primary education (73.3%), though some did obtain a secondary education (20%). Six participants (10%) were currently pregnant at the time they were surveyed.

Table 2 outlines participants' use of family planning. Of the 60 participants, 29 (48.3%) reported currently using a method of family planning, though 20 (33.3%) were using a form of modern contraception. For individuals using a modern method, the majority obtained it at a health center (80%). The table also shows reasons expressed for those not currently using a mode of family planning (n=31). The most common deterrent was side effects (71.0%), followed by fear of husband disapproval (19.4%), and lack of access (16.1%). Of interest, only 3 participants (9.68%) that were not using family planning were doing so because they wanted to get pregnant.

Table 3 outlines the frequency of community counseling regarding family planning and general knowledge of modern methods. While nearly all participants (93.3%) had visited a health facility in the last 12 months, about a third of them (31.7%) were never spoken to about family planning. It was almost evenly split whether a VHT had spoken to them about family planning (51.7%) or not (48.3%). More than a fourth of participants (28.3%) had not spoken to either a provider at a health facility or a VHT about family planning in the last year. However, most knew of multiple common methods. Almost all participants (93.3%) knew of injections and implants, which are the female methods offered at Mpunde Health Center. For some participants, this was the closest health center available to them, though it is not the only health center in the area.

Table 4 outlines the chi squared tests performed on selected demographic and healthcare variables to determine if there were any significant relationships with the use of modern contraceptives. One factor was statistically significant: women who spoke to a healthcare provider in the last 12 months about family planning were more likely to be using a form of modern contraception (46.2% vs 10.5%, p=0.016).

Table 1: Demographics (n=60)	
	Frequency (Percentage)
Age	
18-19	4 (6.7%)
20-24	16 (26.7%)
25-29	10 (16.7%)
30-34	11 (18.3%)
35-39	10 (16.7%)
40-44	6 (10%)
45-49	3 (5%)
Parity	
0	3 (5%)
1-5	27 (45%)
6-10	28 (46.7%)
11 and greater	2 (3.3%)
Mean Parity	5.23
Marital Status	
Married	52 (86.7%)
- Monogamous	32 (61.5%)
- Polygamous	20 (38.5%)
Divorced	5 (8.3%)
Widowed	1 (1.7%)
Single	2 (3.3%)
Religion	
Muslim	20 (33.3%)
Anglican	19 (31.7%)
Catholic	14 (23.3%)
Pentecostal	6 (10%)
Other	1 (1.7%)
Education	
None	4 (6.7%)
Primary	44 (73.3%)
Secondary	12 (20%)

TABLE 1. Illustrates the demographics of survey participants (n=60).

Table 2: Use of Family Planning	
Methods of Family Planning (among n=29 who use family planning)	
	Frequency (Percentage)
Modern Contraceptive Use	
Yes (Modern, Both)	20 (69.0%)
No (Natural only)	9 (31.0%)
Modern Methods Used	
Oral contraceptive pills	2 (6.9%)
injection	5 (17.2%)
implant	10 (34.5%)
Female sterilization	3 (10.3%)
Natural Methods Used	
Breastfeeding	9 (31.0%)
Cycle tracking	3 (10.3%)
Where Modern Method was Obtained (n=20)	
Hospital	2 (10.0%)
Health Center	16 (80.0%)
Outreach	2 (10.0%)
Reasons for not using Family Planning (among n=31 who don't use family planning)	
Wants to get pregnant	3 (9.68%)
Side effects	22 (71.0%)
Financial concerns	3 (9.68%)
Lack of access	5 (16.1%)
Fear of husband disapproval	6 (19.4%)
Lack of Education	4 (12.9%)
Not sexually active	1 (3.22%)
Prefer not to answer	1 (3.22%)

TABLE 2. Outlines the use of family planning among survey participants (n=60). For participants who used a form of family planning (n=29), the form of family planning they used and where it was obtained if they used a modern method is outlined. For those who did not use family planning (n=31), the reasons reported for not using family planning are outlined.

For those currently in a relationship (n=54), 61.1% reported that their partner was supportive of family planning. Of participants who said their partner was supportive, 42.4% were using a form of modern contraception. When women's husbands were not supportive of family planning, only 14.3% of women used a form of modern contraception. This is in comparison to 50% of women not in a relationship using a form of modern contraception.

From the qualitative analysis of focus groups, there were 9 themes that emerged as important barriers to family planning. They included 1) misinformation/misconceptions about family planning, 2) concerns about side effects, 3) negative community perceptions of family planning, 4) lack of education, 5) male opposition to family planning, 6) use of traditional methods, 7) distance to health facilities, 8) financial concerns, and 9) family planning going against religious beliefs.

Table 3: Community Conversations and Knowledge about Family Planning (n=60)	
	Frequency (Percentage)
Visited a health facility in the last 12 months	
Yes	56 (93.3%)
No	4 (0.7%)
A healthcare provider spoke to them about family planning in the last 12 months	
Yes	39 (65%)
No	19 (31.7%)
Prefer not to answer	2 (0.3%)
A VHT spoke to them about family planning in the last 12 months	
Yes	31 (51.7%)
No	29 (48.3%)
Were you told what to do if you experienced side effects?	
Yes	23 (38.3%)
No	20 (33.3%)
N/A	17 (28.3%)
Participant familiarity with modern methods	
Oral contraceptive pill	52 (86.7%)
Injection	56 (93.3%)
Implant	56 (93.3%)
IUD	43 (71.7%)
Male condom	52 (86.7%)
Female condom	3 (5%)
Female sterilization	45 (75%)
Male sterilization	52 (86.7%)

TABLE 3. Outlines community conversations and knowledge about family planning among survey participants (n=60). Participants were asked if they spoke with providers about family planning, and what methods they were familiar with.

Misinformation/misconceptions about family planning

Misinformation/misconceptions about family planning includes information acquired from school or community members which then circulates through the villages and deters individuals from using it themselves. These misconceptions usually involve information regarding harm that occurs as a result of family planning, including damaging parts of the reproductive system, causing infertility, and resulting in children with disabilities. This induces a sense of fear regarding family planning and its potentially devastating consequences that are not medically accurate.

> *When you use injections you might have never given birth, you be destroying your eggs. So those are the things they taught us in school.*
> - *Woman, 18-29*

> *Sometimes you can give birth to a child with disabilities. That's because the drugs that you swallowed will sit within your stomach and it will cause effects on the child.*
> - *Woman, 18-29*

> *And then someone said also, it can also spoil people's uteruses, get infections and they are unable to produce.*
> - *Woman, 30-49*

Table 4: Chi Squared Analysis			
	Using Modern Contraception	Not Using Modern Contraception	P Value
Age	frequency (proportion)		**0.406**
18-19	0 (0%)	4 (100%)	
20-24	3 (18.8%)	13 (81.3%)	
25-29	4 (40%)	6 (60%)	
30-34	6 (54.6%)	5 (45.5%)	
35-39	4 (40%)	6 (60%)	
40-44	2 (33.3%)	4 (66.7%)	
45-49	1 (33.3%)	2 (66.7%)	
Parity			**0.27**
0	0 (0%)	3 (100%)	
1	1 (12.5%)	7 (87.5%)	
2	0 (0%)	4 (100%)	
3	1 (33.3%)	2 (66.7%)	
4	3 (37.5%)	5 (62.5%)	
5	2 (50%)	2 (50%)	
6	6 (54.5%)	5 (45.5%)	
7	0 (0%)	3 (100%)	
8	3 (50%)	3 (50%)	
9	2 (66.7%)	1 (33.3%)	
10	1 (20%)	4 (80%)	
11	1 (100%)	0 (0%)	
14	0 (0%)	1 (100%)	
Religion			**0.201**
7th day adventist	1 (100%)	0 (0%)	
Anglican	3 (15.8%)	16 (84.2%)	
Catholic	6 (42.9%)	8 (57.1%)	
Muslim	7 (35%)	13 (65%)	
Pentecostal	3 (50%)	3 (50%)	
Education			**0.336**
No education	2 (50%)	2 (50%)	
Primary	16 (36.4%)	28 (63.6%)	
Secondary	2 (16.7%)	10 (83.3%)	
Spoken to a healthcare provider about family planning in the last 12 months			**0.016**
Yes	2 (10.5%)	17 (89.5%)	
No	18 (46.1%)	21 (53.8%)	
Spoken to a VHT about family planning in the last 12 months			**0.855**
Yes	10 (32.3%)	21 (67.7%)	
No	10 (34.5%)	19 (65.5%)	
Partner in support of family planning			**0.067**
Yes	14 (42.4%)	19 (57.6%)	
No	3 (14.3%)	18 (85.7%)	

TABLE 4. Demonstrates the chi squared analysis that was performed on survey data to see if there were any significant relationships between demographic and health related variables and modern contraceptive use. One factor was statistically significant: women who spoke to a healthcare provider in the last year were more likely to be using a form of modern contraception (p=.016).

Other misconceptions involve harm that could come specifically from condom use, including that it can cause cervical cancer, or that if it falls off while using it, that it will remain in your body and damage your internal organs. The misinformation regarding condom use is additionally leveraged as a reason for men to not support family planning.

> *So they say that when you sleep with someone after using protectors [condoms] that oil after using it it can cause cancer at the mouth of the uterus [cervix].*
> - *Woman, 18-29*

> *The others say that some men that when you are having sex that the condoms can get stuck in your organs so they always give that as an excuse and they always have unprotected sex.*
> - *Woman, 18-29*

Concerns about side effects

Participants often referred to side effects experienced as a common reason they themselves, or other community members, do not use family planning. There were many concerns about excessive bleeding, general body weakness, low libido, and infertility. Bleeding was of particular concern because there are financial consequences if they must seek follow up care. This again intersects with other barriers, such as financial concerns and male opposition to family planning.

> *Someone said someone bled for 6 months like a basin of blood.*
> - *Woman, 18-29*

> *Others say that it causes pain in their uterus. Yeah their uteruses got sick while they were using family planning.*
> - *Woman, 30-49*

Negative community perceptions of family planning

Across 49 studies, vaccine acceptance is found to be mostly associated with certain (1) demographic characteristics including male (n= 9), higher education level (n=6), higher income levels (n=18), (2) perceived risks and severity of disease (n=12), and (3) vaccine history (n=12).

Stemming from the lack of formal education and misinformation surrounding family planning, individuals' attitudes and perceptions regarding its usage are largely based on community members' testimonies. The general consensus among participants was that conversation regarding family planning was mostly negative.

> *Most of the women here talk bad about family planning. And others they say that rather carry out female sterilization than going for family planning.*
> - *Woman, 18-29*

This came largely from hearing bad experiences of others, hearing contradictory information and thereafter being confused on the best course of action, and often related to misinformation surrounding side effects and effects on fertility.

> *Others we find a problem that you would want to go for family planning but there are other people who tell us and they divert our minds by telling us good things and bad things. At the end of the day you end up getting scared of going for family planning after someone speaking something bad because they say that family planning it can cause injuries in the fallopian tubes. Sometimes you can have back aches, that sometimes you lose even appetite [libido]. So they say various things and it ends up that you are stuck on what to do.*
> - *Woman, 18-2*

> *Let me start with those who don't support it. People don't support it. The reason is one, if they hear about someone who has ever used injectables, pills, or implanons and they got negative side effects and then also after she leaves it and she wants to get pregnant, she gets difficulties and they stop supporting it. Others when they start their periods they bleed excessively and that makes it very difficult for them so that is why others may not support family planning.*
> - *Woman, 30-49*

Negative community perceptions of family planning also influence men not supporting family planning, which results in another barrier for women who do want to access it.

> *Another one may have seen something or he saw it happening to the neighbor's wife and he says according to what happened to the neighbor's wife so there is in my home I don't want to hear anything concerning family planning. So only that can make him to get irritated about family planning because of what he saw happening to someone and he refuses you to go for family planning.*
> - *Woman, 18-29*

Lack of education

Participants report that a fundamental lack of education surrounding family planning is an additional barrier to its access and usage. Due to a lack of formal education, much of the information and influence someone receives regarding family planning is through testimonies of other community members.

> *The real problem that is very important to us is that you find that sometimes we do not get educational talks about it. And when you don't know that this works like this and if it happens that you hear from others and they said that I used this method and it worked out for me and you also go because another individual just told you about that method but when you have never had any education about family planning and others we go because we heard another individual had gone for that method.*
> - *Woman, 18-29*

This lack of knowledge can translate into fear of family planning methods which further deters individuals from its usage. Participants elaborated that addressing this issue of education would be a fundamental first step in moving forward with implementing family planning practices.

> *If we get educated we shall be on the same track. Because others don't know how to use them and they don't know them. They don't know what they do and they fear them.*
> - *Woman, 18-29*

Male opposition to family planning

Male opposition to family planning is another barrier for women trying to access modern contraception. There were three recurring reasons for men's disapproval: financial consequences for side effects, interference with their sexual relationships, and cultural pressure to have a lot of children. Bleeding was the main side effect of financial concern, since this would require the woman to revisit the health facility.

> *Sometimes you can come to an agreement with your husband and then you go or you get injections but the effects that come after you getting the family planning can make him to get irritated. So when you go for the first time and it treats you in a bad way and he spends money for treating you it makes him to hate all the other methods of family planning so he stops you from getting it and he says that leave it.*
> - *Woman, 18-29*

Bleeding, low libido, and use of condoms are seen to have a negative effect on the man's ability to have sex with his wife whenever he wants, and for this reason many men do not support family planning.

> *You see in the beginning when he has allowed you can come to an agreement considering the situation in which you are in the home. Let us say that family planning what they say they can reduce the feelings of a woman so when the man reaches a time when he wants sex and that is not what you want so that one can make him to get angry and he says that family planning leave it and other people go for it and they bleed prolongedly so it doesn't make the man happy and he says leave it and there is no job for him.*
> - *Woman, 18-29*

> *He is not doing work [having sex with his wife].*
> - *Woman, 18-29*

Furthermore, having a lot of children is valued both religiously and socially. Men perceive that some children will be of greater value or usage than others, so to make sure they had enough "good" children, they have to produce a lot.

Men, but besides mine, I won't say much about him because he never told me to join or not to join family planning, God gave me the children that I have, maybe he thought they were enough for me, because I've never used family planning. But most men don't like family planning because of these reasons. They think that when you have many children, there are some that will understand them, but then if you produce a few, they can all be rascals and none that understand them. So they prefer producing many so they can find some that understand them. Men say that I was an only child or we were only two children in my father's house so let me produce many children and we become many in my family, I can make my own clan. So those are some of the things I hear from men.

- *Woman, 30-49*

Use of traditional methods

Although not commonly referred to, a participant did mention alternative contraceptive methods that were herbal remedies. It sounded as though this individual who gave the herbs was readily accessible in the community.

There are those that use herbal methods of family planning. Now the herbalist will give you the herbs and you will drink them. It will take a certain period of time of 3 months and you will go back to get more.

- *Woman, 18-29*

Distance to health facility

Participants noted that the distance to a health facility can be a prohibiting factor in accessing family planning. It may be hard to arrange transportation to the health facility when it is required to get one's next allotment of contraception, particularly with oral contraceptive pills and injections.

Then the other thing that the place that you get family planning is far away to access. And sometimes it can reach that the days when you are meant to go back to the health center have reached and you have no transport to take you to where you are meant to receive the method. It becomes so hard and you find that the days have bypassed and then you end up getting pregnant. And because the distance is very long, and when the days have reached but because it is a very far distance so you don't go.

- *Woman, 18-29*

Additionally, knowing that the health center is difficult to get to can deter one from using family planning when they know that it would be hard or impossible for them to return should they need follow up care, or when it comes time to get the method removed in the case of an implant or IUD.

There are some people who join family planning but are far away from where they can get necessary help if they need it in regards to family planning. There are also some that may lack access to services that they need when the time to remove whatever they put for them has reached. So those are some of the challenges that people face in these villages. Sometimes people come to me asking for directions or advice on where to get their implants removed, but I have no way of helping them.

- *Woman, 30-49*

Financial concerns

The financial costs associated with obtaining family planning services and/or follow up care if needed is cited as one reason that individuals in the community cannot access family planning. They note that having to pay to be seen by a provider regardless of if family planning is initiated amplifies this barrier. This relates to concerns about side effects as well, as individuals do not have the finances to cover unexpected expenses for management of side effects. Participants repeatedly referenced a blood test to determine their ideal form of contraception, suggesting they expected a provider to tell them what method would work best for them where they would not experience any side effects.

In other places they pay money just to work on you they need money and people do not have it.

- *Woman, 18-29*

Let them make things to be for free. And let them remove even a single coin and they would just tell you that if you want family planning you just go so that they know your blood matches with which kind of method and they work on you.

- *Woman, 18-29*

Family planning going against religious beliefs

Participants shared that religious beliefs in the community are another reason individuals do not access family planning. It is believed that family planning kills the eggs or ovaries that would have become children, and that this constitutes murder, which the Bible prohibits.

> *My thought is that when you go for family planning you are killing the ovaries that would have produced a child so they become disorganized inside there and they tell us that you are killing and yet the Bible refuses us to kill.*
> - *Woman, 18-29*

Additionally, religious texts emphasize the responsibility to procreate which further frowns upon usage of family planning to regulate or decrease births.

> *And another thing, they give us the writings that we were sent in this world to produce and fill the world*
> - *Woman, 18-29*

> *For me, my religion, they tell us to reproduce and fill the Earth, so that means you have to produce until until.*
> - *Woman, 30-49*

DISCUSSION

The results of this study show that there are a considerable amount of multidimensional barriers women face regarding modern contraceptive use. The most common deterrents were side effects (71.0%), fear of husband disapproval (19.4%), and lack of access (16.1%). This is in line with other research that also emphasized fear of side effects[10] and husband disapproval[11]. Fear of infertility specifically has been noted in other studies, and can likely be attributed to Uganda's pronatalist culture, where fertility also has social and economic consequences[12]. It especially influences male opinions on the subject, who experience cultural prestige for having lots of children. In a patriarchal society such as Uganda, this severely impairs women's autonomy to make decisions regarding family planning.

There were a number of women (14.3%) that were using a form of modern contraception despite their husband not supporting family planning, which alludes to covert contraceptive use. It is likely that in these instances women may be using contraception secretly to avoid conflict or violence in their relationship. Previous studies showed rates of covert contraceptive use were constant across age groups, highlighting the persistent pressure for women in Uganda to have children regardless of how many they already had[9]. Having to seek contraception without their husband knowing, especially if he is in control of their finances, poses particular challenges to accessing contraception even where it is clinically accessible.

The prevalence of misinformation and lack of access to education expressed by participants highlights the need for further community education on family planning. Since almost all participants (93.3%) had visited a health center in the past year, there is strong potential to use these visits to provide education regarding family planning. Since village health workers are also integrated into the community, increasing the conversations they have with individuals on a more regular basis can help to normalize conversations regarding family planning and could increase its usage. An increase in education and minimization of stigma would combat the persistent negative perceptions of family planning that perpetuate misinformation throughout the community. Since male disapproval greatly shaped family planning usage, it would be useful for future research to further investigate male perceptions and beliefs regarding family planning in rural Ugandan communities. This would allow for more efficacious educational programming that was tailored towards men's concerns, which would in turn help women in the community. Partner support of family planning could potentially be a significant factor in a larger sample size (for n=60, p=.067).

However, education alone will not be sufficient, as further research should investigate the effects of increased economic opportunities in order to further gender equality and female empowerment. Other studies have shown that having an independent income increases women's autonomy which can contribute to an increase in uptake of family planning[13]. This could be due to eliminating a woman's need to secure money from her husband in order to cover the cost of family planning. Alleviating this financial burden from the male partner may ease some of their opposition towards family planning.

There are several limitations to this study. For one, it was conducted using a small sample size, and among a few villages in a single district in Uganda. Thus, results from this study may have limited generalizability to Uganda as a whole or to other communities in low and middle income countries. However, the barriers these women face are not unique. Additionally, while survey participants were selected at random, participants for the focus group were not. Village health workers selected those participants, which may have induced a bias in sampling. Time and resource constraints limited the focus groups we were able to perform to one village. Ideally, more would have been conducted to consider a greater variety of perspectives. Since male opposition played such an important role in uptake of family planning, future research should include male participants in surveys and focus groups to further understand their perspectives.

CONCLUSION

The goal of this study was to explore the use of family planning and factors influencing its uptake in the Buyende District of Uganda. As expected, the reproductive health goals of women in the area were not being met. There were a number of barriers to family planning use that spanned socioeconomic, accessibility, and cultural categories. It is vital that these needs are addressed in order to facilitate safe birth spacing, decrease maternal mortality in the area, and to promote female empowerment and gender equality. Acknowledging the barriers revealed in this study can be utilized to shape future health policy and funding opportunities for government and aid agencies. All women deserve the autonomy to decide how many children to have, when to do so, and the resources to accomplish such.

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