

Beyond knowledge acquisition: factors influencing family planning utilization among women in conservative communities in Rural Burundi.

SONIA HAKIZIMANA (✉ yezumukiza@gmail.com)

Village Health Works <https://orcid.org/0000-0003-3065-4614>

Emmanuel Nene Odjidja

Village Health Works

Research

Keywords: Family Planning, Contraception, barriers, perceptions, rural Burundi, sub-Saharan Africa

Posted Date: September 4th, 2020

DOI: <https://doi.org/10.21203/rs.3.rs-24210/v2>

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Abstract

Background With a fertility rate of 5.4 children per woman, Burundi has been ranked as seventh highest country with the highest fertility rate in the world. Family planning is known to allow couples to achieve the desired family size, appropriate space birth and the limitation of pregnancies. Also, family planning can contribute to mitigating some health issues such as unintended pregnancies and abortions all of which, are often associated with multi-parity. In conservative community in rural Burundi, knowledge on family planning is high and such services are free yet utilisation is low. Employing a mixed methods, this study first quantifies contraceptive prevalence and second, explore the contextual multilevel factors associated with low family planning utilisation among married women.

Methods An explanatory sequential mixed study was conducted. Five hundred and thirty women in union were interviewed using structured and pre-tested questionnaire. Next, 11 focus group discussions were held with community members composed of married men and women, administrative and religious leaders (n=132). The study was conducted in eighteen collines of two health districts of Vyanda and Rumonge in provinces of Bururi and Rumonge respectively. Quantitative data was analysed with SPSS and qualitative data was coded and deductive thematic methods were applied to find themes and codes.

Results The overall contraceptive prevalence was 22.6%. Injectables (40%), Implants (24.6%), Male condom (10.8%) and pills (6.2%) were the major contraceptive methods utilized by study participants. Factors inhibiting family planning use emanated from a range of issues which were identified during the qualitative phase. Notable among those was experiencing side effects and costs associated with its management in the health system. Religious conceptualisation and ancestral negative beliefs of family planning had also shaped how people perceived it. Furthermore, at the household level, gender imbalances between spouses had resulted in break in communication, also serving as a factor for non-use of family planning.

Conclusion The study suggests that low uptake of family planning can be attributed to perceived or experienced side effects as well as deeply rooted negative beliefs which are reinforced by religious beliefs. Men and religious leaders' involvement in family planning initiatives can positively impact behaviour change and increase family planning acceptance.

Plain English Summary

In the context of rural Burundi, community members agree that large family are difficult to sustain but contraception coverage remains consistently low. This study explored the factors behind this low utilisation of family planning in two health districts located in Vyanda and Rumonge communes of Burundi. The findings suggest that fear of side effects is the main reason of family planning non-utilization or discontinuation. The culture and religious beliefs also favour large family size and among men, this is conceived as a sign of wealth, power and respect. Lack of spousal communication and unequal gender relations in household also impedes women from contributing decisions on family

planning. Therefore, the onus lies on men, whom, have limited understanding of how family planning works to make final decision on initiation.

In improving coverage of family planning in these communities, first, the health system, which serves a primary contact, should be capacitated to provide quality, timely and people-driven family planning services to those who need it. At the community level, use of community health workers to deliver family planning services could significantly increase uptake. Men and religious leaders' involvement in promoting family planning use can contribute to reducing the impact of cultural and religious barriers, increasing uptake to desired levels.

Background

Burundi, a small, landlocked country in East Africa is a home to 11,175,378 individuals [1]. The population density is estimated at 435 people per square kilometre thereby, making Burundi second most populated African nation. [1] Despite the scarcity of cultivable land, 87% of the rural population depend solely on subsistence farming [2]. With a fertility rate of 5.4 children to a woman, Burundi has been classified as among the top ten countries with the highest fertility, placing just seventh after Niger, Somalia, the Democratic Republic of the Congo, Mali, Chad and Angola [24]. High fertility rate has been identified as a major contributor to poor health outcomes such as increased maternal and child morbidity and mortality. Consistently, previous studies have suggested that grand multiparity (parity ≥ 5) is associated with adverse pregnancy outcomes such as caesarean delivery, foetal macrosomia, diabetes mellitus and pregnancy induced hypertension. [4]. Additionally, Hendrik et.al (2014) found that short birth intervals negatively affect perinatal, neonatal and child health by increasing the incidence of preterm birth, low birth weight and perinatal death. [5]

On the other hand, contraceptive use prevents pregnancies and associated risks of miscarriage, stillbirth and postpartum haemorrhage among others [6]. Research suggests that preventing births in mothers with five or more children could reduce maternal deaths by 58% and family planning could prevent around 272,000 maternal deaths in the world every year [7]. Recent evidence suggests that family size could also be a determinant to child nutritional status, morbidity and mortality [8]. Moreover, socially, contraceptive use among women is an indicator for autonomy which is also accomplishment of fundamental human rights of decisions on how to use their bodies [9] and in fulfilment of sustainable development goals 3 [10].

Despite that modern contraceptive methods have shown to be effective in spacing births and avoiding unintended pregnancies, its low uptake is still a concern in many parts of the developing world particularly in Sub-Saharan Africa. 21% percent of the 214 million women of childbearing age in developing countries who would like to avoid pregnancy but are not using any modern contraceptive method reside in Sub-Saharan Africa [7]. According to the DHS, only 23% of women in Burundi living with a partner and aged between 15-49 years use modern contraceptive methods of which 30% of these have an unmet need of family planning [3]. Although 97% have comprehensive knowledge on family planning,

40% of women using contraceptives in the last five years discontinued with 33% of women citing side effects as reasons for discontinuation [3].

This finding is consistent with other studies conducted in Sub-Saharan Africa and South Asia. A study conducted in Bangladesh highlights that 47% of women who discontinued oral contraception use reported that the experience of side effects is the main reason of discontinuation [11]. Another study by Mrwebi et al in South Africa has reported on early removal of the implants, owing it to side effects [12].

While Burundi is one of the countries with the least contraceptive prevalence, little research has been conducted from community's perspective to understand the factors driving utilisation especially in communities (collines) with conservative traditional values. Little is known about how the sociocultural space facilitates or hinders the utilisation and continuation of family planning in the context of Burundi.

This study aims to investigate the factors affecting FP utilisation in conservative communities in rural Burundi using an explanatory sequential mixed methods study. Through acquisition of quantitative and qualitative information, we sought to bring an in-depth comprehension of this complexity in this setting.

Methods

Study Design

An explanatory sequential mixed design study was carried out from 1st May to 28th June 2019, commencing with quantitative information on a mass scale then using focus group discussions (qualitative methods), we explored and described patterns/relationships that emerged from the quantitative strand. To allow comparison with national figures, we adopted and adapted quantitative questionnaires from the DHS to understand contraceptive prevalence disaggregated by background characteristics. Questionnaires were deployed via an electronic system and administered by appointed enumerators and teams. Due procedures to ensure respondents' rights and privacy were respected. We learned from family planning records from Kigutu Health centre which serve the community in the eighteen collines that women represented more than ninety per cent of the people who came for family planning service during the previous year. Having that background knowledge, this study has focused on married women during the quantitative phase and questionnaire was administered to a sample of this target population.

Data from quantitative phase was collected and analysed and those interesting relationships were further explored using focus-group discussions. These groups comprised of married community members, opinion, and religious leaders. Those community representatives in the focus group discussion were selected because they qualify for family planning utilization or were in the position to influence family planning uptake. They were selected in all 18 collines, however in case of collines with similar characteristics, representatives of two or three collines were invited to join one discussion group. This qualitative phase used an open-ended questionnaire that assessed different topics including family planning. Although questions had been preconceived, it was general, and the direction of discussions

were driven by study participants. An experienced and trained moderator was appointed and ensured that all respondents were given equal opportunity to speak and their views were respected.

Study Area

The study was conducted in rural districts of Bururi and Rumonge provinces located in South of Burundi, East Africa. Specifically, the study was conducted in 18 collines (districts) of the Vyanda and Rumonge commune (regions). While collines in the Vyanda commune were Mirango, Kabwayi, Migera, Mushishi, Kirungu, Kigutu, and Karirimvya, those in the Rumonge commune were Cabara, Mutambara, Karagara, Gitwe, Gatete, Gashasha, Kanenge, Mayengo, Nyakuguma and Busebwa.

Sampling Strategy

The quantitative phase included a two-stage sampling strategy which comprised of cluster and systematic sampling. During the first stage, all collines, their population were considered as a possible sampling frame. A probability proportion to size (PPS) was applied to select a desired cluster size of 30. The calculated sample size was divided by this number to determine the sampling interval. Enumerators upon arrival at every colline, received household list from the colline administrator. The sampling interval applied to derive the interval of households to be selected systematically. Given the study objectives, the following criteria were applied to ensure enumerators were interviewing the right households:

Inclusion Criteria

1. Household with women aged 15 and 49 also classified as those in reproductive age
2. Head of household and caregiver in the right state of mind to actively respond to questions
3. Households whose head signed off the consent form

Exclusion Criteria

1. Households that did not meet the stated inclusion criteria
2. Households whose women of reproductive age were currently pregnant

Sample Size Calculation

The sample size was calculated based on predetermined methodology of the Demographic Health Survey. Using this rigorous methodology, a sample size of 952 households were selected and distributed equally among the clusters.

The qualitative phase employed 11 focus groups with an average size of 12. Members of these groups were purposively selected to represent a mix of community representatives and members.

Data Analysis

Quantitative analysis was initially cleaned via quality check for completeness and consistency. The analysis in this paper is based on knowledge of contraceptive methods and current use of contraceptive methods. Women who never had child or wanted another child within 2 years were excluded in the analysis regarding current use of contraceptive methods. These indicators were analysed quantitatively using IBM software-SPSS Statistic version 20 [13]. Chi-squares were used to assess relationships between outcomes and exposure variables.

For the qualitative analysis, focus group discussions were recorded, transcribed and translated from Kirundi to French then to English. In ensuring consistency in translation, all transcripts were reviewed by two native Kirundi and French speakers with an advanced fluency in English. When there was a disagreement on translated word, a third advice was sought from a third person. After this, deductive mechanisms consisting of desired number of children, facilitators and barriers of family planning were employed to detect emerging themes and codes. The generated codes were applied to all transcripts for quotes which were in line to themes.

Ethical Considerations

A signed letter approval was granted for this study by the local health authorities in the Bururi and Rumonge province which is a representative body of the National Ethics committee at the province level. Study participants signed a consent form ahead of interview and careful steps were taken to ensure respondent's rights and privacy were respected at all times.

Results

Socio Demographics Characteristics

A total of 530 women in union at the time of data collection were interviewed from 930 households, accounting for a response rate of 95.4%. The mean age of the respondents was 30.76(\pm 6.872 SD) with a minimum age of 18 years (Table 1). More than half percent of women (51.7%) were between the age of 25 and 34 years. The mean age at the first pregnancy was 20.17(\pm 3.53SD) years. More than a quarter (26.6%) of women in union has not attended formal education while only 12.3% of those who attended formal education had completed secondary education. The average number of children a woman had was 4.3(\pm 2.4 SD). 216 women (42%) had five or more children. Additionally, 37.7% of women spaced the last two children less than 24 months. 14% of the participants reported that they had ever lost a child less than 5 years old.

Family Planning

In this study, 94.3% of women, reported to know at least one type of contraception with 94.2% knowing at least a source of acquiring contraceptives. Only 22.6% of women who desired to space their next birth more than 2 years were using a contraception method at the time of interview. The most prevalent modern contraceptive method was the injectable accounting for 40%, followed by implants used by

24.6% of women. The male preservative, Intra Uterine Device (IUD), pills and sterilization represented 10.8%, 6.2%, 3.1% and 1.5% respectively. 13.8% of women who adhered to any form of contraception reported to be using natural contraceptive methods. Among women not on any form of contraceptives, the following reasons were cited: side effects (51%), absence of menses since delivery which considered as postpartum or delayed postpartum in case it exceeds six weeks (18.8%), religious beliefs (12.9%), partner opposition (8.4%), partner absenteeism (6.4%) and lack of awareness about family planning services (2.5%). Among women on modern contraception, 68% reported that they were not informed about eventual side effects at the time they started utilization.

Table1: Socio-demographic and obstetric characteristics

Characteristics	Categories	n (%)	95% CI	P-value
Age of mother	18-24	104 (19.6)	18.3 - 20.1	0.105
	25-29	136 (25.7)	21.4 - 26.6	
	30-34	138 (26.7)	22.3 - 29.5	
	35-39	83 (15.7)	12.7 - 18.6	
	40-44	46 (8.7)	7.2 - 9.5	
	45+	23 (4.3)	3.9 - 5.2	
Educational level of Women	No formal education	141 (26.6)	23.5 - 28.6	0.118
	Uncompleted Primary education	197 (37.2)	32.3 - 40.2	
	Completed primary education	49 (9.2)	7.2 - 10.8	
	Uncompleted secondary education	91 (17.2)	14.3 - 19.5	
	Completed Secondary School	48 (9.1)	8.4 - 10.9	
	University education	4 (0.8)	0.2 - 1.9	
Parity	≤4	298 (58)	56.6 - 60.7	0.034
	5-7	162 (31.5)	27.5 - 33.1	
	≥8	54 (10.5)	6.2 - 14.8	
Birth interval between the last two children	<24 months	173 (37.7)	37.7	<0.001
	≥24months	286 (62.3)	62.3	

There was a statistically significant negative association between last two children birth intervals and family planning utilisation (p-value <0.001). Those who had longer intervals between the two last births were less likely to adopt any family planning method as spacing had been considered as a natural family planning method.

Table 2: Odds Ratio predicting women’s use of family planning based on background characteristics

Characteristic	OR (95%CI)	P-value
Age of Mother	1.14 (1.02 – 1.56)	0.107
Educational level of Women	1.31 (1.11 – 1.49)	0.183
Parity	1.72 (1.35 – 2.01)	0.002
Birth interval between the last two children	2.84 (1.92 – 3.41)	<0.001

In a multivariable logistic regression, women with a higher parity were more likely to use family (OR 1.72 95%CI 1.35 – 2.01) than those with a lower parity (Table 2). Age of mother and level of mother did not significantly influence women’s decision to use family planning.

Findings from Focus-Group Discussions

The results of the quantitative phase showed a very low uptake of the family planning methods. The qualitative phase was undertaken in an attempt to understand the reasons justifying the quantitative results. This phase was introduced by a probing theme on the desired family size as we assumed that a desire of large number of children may be the cause of the low family planning enrolment.

Considering the desired number of children expressed by each group, the discussion was directed towards the different barriers that hamper the achievement of the ideal family size as many families were having more children than they wished to have.

The participants of the focus group discussion were women of reproductive age (between 15 to 49 years old), men whose spouses’ age was within 15 to 49 years, administrative and religious leaders. Each of the 18 collines was represented by an even number of women and men selected from the above group of people.

Desired number of children

Both men and women agreed that it was very hard to sustain a large family in the present socio-economic situation. Most participants suggested that at most four children were ideal to achieve a decent standard of living.

A female participant in a colline, Gatete described how she would have preferred to practice family planning earlier in her life: “I have five children but I wish I had three because life is very expensive nowadays.”

“I think four children are enough to be brought up and educated properly”. (FGD man, Gitwe colline)

Barriers of Contraceptive use

Fear of side effects

From the findings, fear of contraceptives' side effects was reported as the main reason for underutilisation and discontinuation modern contraceptive methods. Rumours regarding the side effects of family planning which included bleeding, cancer and infertility propagated by other community members had largely contributed to this communal fear.

"I know one lady who started using modern contraceptive after her second pregnancy. Later on she abandoned to get the third child but failed to conceive." (FGD Woman, Migera colline)

This climate of fear had been used as an avenue exploited by religious leaders and other anti-family planning people to make contraceptives unpopular:

A male participant said *"church leaders often instruct the faithful that the use of modern contraception is the cause of the increase of cancer cases that occur nowadays."* (FGD man, Gashasha colline)

In addition, some participants had shared their personal experience with side effects and how this was conceived by their spouses and the community as a whole. Personal experiences had deeply shaped continuation of family planning and although there was wide community consensus on the adverse effects of family planning, side effects created preconception which encouraged family planning discontinuation as soon as side effects emerged:

"I have used injectable and I experienced continuous bleeding. I went back to the hospital and obtained some medicines and I have since abandoned the modern contraceptives method." (FGD woman, Cabara colline)

In addition, the issue of side effect management at the health system level was raised during the discussions.

"There should be qualified personnel to deliver quality health care to follow those side effects cases closely and inform the people who are coming for family planning services about the side effects that may occur. If the health practitioner cannot give medicines to resolve the side effects issue, the patient will give up the use of family planning methods." (FGD man, Mushishi colline)

Further, participants were concerned about increased fees to treatment of side effects despite receiving the family planning for free. This concern had metamorphosed into a fear which served as a disincentive for not only initiating family planning but also, continuation for those that subscribed:

"I know a woman who have used an IUD but experienced side effects. This woman had to pay a lot of money for her treatment and then discouraged other women to consider any modern contraceptive methods." (FGD man, Mushishi colline)

Religious beliefs

In conservative communities, religion forms an integral section of the life and in the case of deciding the use and continuation of family planning, religion is a major determinant. From the discussion, we learned

that natural family planning which consists in identifying the signs and symptoms of fertility during a menstrual cycle and practising sexual abstinence during the fertile period to avoid pregnancy was the only method that most of the religions recommend to limit or space pregnancies. This influence from religious leaders and conceptualization of modern family planning as a sin served as a deterrent for most women:

"our community health workers always sensitize about family planning but their teachings conflict with church teachings which say that modern family planning is a sin of killing. When it is known that a church follower has adhered to one of those methods, she will be suspended from the church services. That is the reason many individuals have given up the use of modern contraceptive methods." (FGD man, Kabwayi colline)

Cultural beliefs

Culture as expected, was found as a determinant of family planning and this emerged as a theme from the focus group discussions. For some participants they cannot limit the family size when they have only girls on the other hand, they prefer many children because some of their offspring may eventually die and in that case, they hope that at least some will survive and support the family. Other women perceived increased family size of a man as a security to their marriage:

"In Burundian culture we are afraid of having few children. For instance, if we go for vasectomy and death takes all the children, it will not be possible to reproduce again." (FGD man, Kanenge colline)

"In our community, women with many children think that their husband will not seek extra marital children and therefore do not adhere to family planning methods." (FGD woman, Kanenge colline)

Spousal communication gap

Both men and women agree that they do not openly discuss the optimal number of children and how family resources could support child upbringing.

"I could say that there is a lack of communication between husband and wife. Otherwise, if they were communicating effectively, they could convince each other and reach a common understanding on how to achieve family planning." (FGD woman, Kabwayi colline)

Unbalanced power and gender roles

Group discussions have also reflected the fact that men do not participate in family planning sensitization and do not take any responsibility towards family planning while they have a predominant role in family decision-making including childbearing.

“Women are victims of men who do not understand family planning policies. They spend most of the time in bars and when they come at home, they are drunk and force us into sexual intercourse while we are in our fertile period and we get unplanned pregnancies in that way.” (FGD woman, Karagara colline)

Discouragement from family planning adherence by health practitioners

Some participants shared that in their health facility, they have encountered health practitioners who were religious and discouraged patients in adopting family planning methods. They advise them to consider only natural methods and emphasize the fact that modern contraceptive methods have many side effects.

“Some medical staff are against modern contraceptive methods because of their side effects. If the health practitioners doubt on those methods, we will be more doubtful about adopting any form of modern contraception methods.” (FGD man, Migera colline)

Discussion

This mixed-methods study assessed the determinants of modern contraceptives and factors that hindered uptake of contraception among women of reproductive age (15 to 49 years) in rural collines of Vyanda and Rumonge districts of Burundi. The current study found that modern contraceptive methods knowledge was high with 94.3% of respondents able to cite at least one modern contraceptive method while utilization was low (22.6%). This confirms the BDHS finding which suggested that 97% of men and women know at least one contraceptive method but only 29% of women were using any form of contraceptive method at the time of the survey [3].

To understand the increased gap between the knowledge and the utilization of contraceptive methods, a qualitative study involving focus group discussions with men, women, community and church leaders was undertaken. The study identified five barriers to contraceptive use which help to explain the low utilization rate. Firstly, is the fear of side effects and its management which is not handled appropriately by the health system structures. Secondly, religious beliefs represent, and influence of religious actors significantly impede uptake of modern contraceptives in conservative communities in rural Burundi. Thirdly, presence of cultural norms and strong adherence at the household and communities contributed to low utilization of family planning methods. Next, the lack of communication between spouses to have common understanding and take decision towards family planning strategies also served as a barrier. In addition, low family planning methods uptake is explained by unbalanced power and gender roles which give men prerogatives to control woman’s procreative power while the men are less knowledgeable about reproductive health. Finally, some health practitioners discourage utilization of modern contraceptive methods, citing reasons of religion and/or side effects.

This study highlights key lessons that should be considered for future program interventions. An important finding is related to comments by participants that the non-utilization of modern contraceptive methods was attributed to the fear of perceived side effects more than religious beliefs. After harmful

experiences with modern contraceptives, women often choose to discontinue utilization. Negative health incidents are shared with social networks which, as a result heighten the worries of side effects, serving as a deterrent for others to adopt modern family planning methods. These findings are consistent with those found in similar contexts in Africa [14, 15].

In addition to side effects, beliefs espoused by religious leaders that contraceptives are sinful were found as barrier. In instances when side effects presented, these leaders interpreted it as a punishment from God and only discontinuing it would be the way to relief and freedom. Other studies found similar findings and as discontinuation of any methods were linked to perceived comfort, often times such false narratives were accepted as truth [16, 17]

Furthermore, the discussions brought light to the fact that spousal miscommunication, unbalanced power and gender roles and non-involvement of male in family planning awareness program hinder the success of family planning interventions. This is underlined by cultural norms in favour of large families and patriarchal society where family planning decisions must be approved by men considered as head of the family but the latter has limited knowledge in the subject matter as family planning is known to be a “women thing”. Patriarchy in rural communities especially in sub-Saharan Africa have always been a determinant of reproductive decisions including family planning. This has become a political issue which remains unattended even at national and international levels [18, 19]. In our communities, men who accepted family planning could not own up and defend their decision publicly as it was seen as a sign of weakness and contravention to the cultural norms which strongly upheld increased household size as a wealth and power.

Our work suggests that family planning uptake could be increased in conservative rural communities via overall health systems strengthening including health workers’ capacity to administer family planning methods with dignity and without blemish. Communication of side effects at the onset of utilisation is key, as such, health staff especially those at primary healthcare should be well-trained to advise accordingly. Out-of-pocket payments associated with management of side effects are hindering factors, therefore implementing interventions to reduce the burden of payment could be critical and essential to uptake and continuation of family planning methods.

Accessibility to family planning in this setting is key and evidence from elsewhere has shown the importance of using community health workers in delivering family planning to the doorstep of people. A study conducted by Stanback J et al, proved that in addition to pills and condoms, community health workers in Uganda could effectively provide injectables services including side effects counselling hence community health workers can deliver perfect complement to contraceptive service delivered in the formal health system [21]. Successful uptake of family planning in Ethiopia, Malawi and Rwanda all underscores the distinct contribution of health extension workers and overall health system strengthening strategy [22].

Involvement of men and religious leaders should be involved in Family planning awareness initiatives. An assessment of a male motivator project in Malawi provided evidence that men involvement in family

planning program and increased spousal communication promote contraceptive uptake [20]. Besides, religion plays an important role in most of sub-Saharan African culture and religious beliefs influence people's decision making by shaping their ideas, views and thoughts, therefore incorporating that into family planning could yield positive impacts [23].

Sunday A. et al shared the evidence of Nigerian urban Reproductive Health Initiative which suggests that there is a significant association between contraceptive uptake and exposure to family planning messages delivered by religious leaders [23].

Limitation of the study

Studies that employ responses from retrospective activities could result in recall bias. Recall bias could result in either overestimating or underestimating results presented here. To reduce the impact of recall bias, an exploratory approach in the form of focus group discussion was undertaken to validate and explain results from the quantitative research strand. Focus group discussions, if not moderated effectively could bring about differences in power dynamics among participants which, could result in unequal contributions from study participants, thereby skewing results to only the powerful and vocal participants. This could have been our case, however, the employment of an experienced focus group facilitator for all the sessions, to a larger extent, averted all possibilities of this bias.

Conclusion

This study emphasizes that the knowledge of contraceptive methods and the desire to limit the family size do not translate in contraceptive uptake. This information contributes to the existing body of knowledge on family planning in the context of Burundi and to a lesser extent, Africa at large. Given that Burundi is among the countries with the least use of family planning methods, this study brings more clarity on the idiosyncratic factors affecting use especially among those living in conservative rural areas.

The multifaceted impediments to increased contraceptive utilization must be considered by policy makers and program implementers in order to develop tailored interventions that are more likely to yield best results. To make strides towards universal access to family planning, government and partners should tackle the issue of side effect management and promote community-based family planning approach. The latter may include religious leaders' engagement to share scriptural messages in favour of family planning during mass campaign as it is anticipated that they can influence behaviour change of their followers. Capacity building and equipment to community health workers to provide effective family planning counselling, address community misbeliefs around family planning and deliver some modern contraceptive methods could be an effective strategy worth the investment.

Abbreviations

Acronym	Meaning
DHS	Demographic Health Survey
FGD	Focus Group Discussion
FP	Family Planning
IUD	Intra Uterine Device
PPS	Probability Proportion to size
SD	Standard Deviation
SPSS	Statistical Product and Service Solutions

Declarations

Ethics approval and consent to participate

A signed approval was obtained for this study from the local ethics committee and health authorities in the Bururi and Rumonge province after presentation of a study protocol and questionnaires. The study was also internally commissioned and approved by senior management of the organisation after review of the study protocol and questionnaires. Study participants also signed a consent form ahead of interview and child anthropometric measurements.

Consent for publication

Not Applicable

Availability of data and materials

The data used for analysis in this manuscript are available from the Research, Monitoring and Evaluation Department of VHW. Data is restricted but available from the authors upon reasonable request.

Competing interests

The authors declare no competing interests

Funding

Not Applicable

Authors' contributions

SH and ENO conceptualised the study. SH supervised data collection, analysed both qualitative and quantitative and wrote first draft of the manuscript. ENO reviewed the first draft, provided technical comments and made edits when necessary. All authors read and approved the final manuscript.

Acknowledgements

The authors are grateful to all field assistants and measurers who spent an extended time in the community collecting these data.

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