Determinants of Long Acting Contraception Among Women Using Modern Contraception in Cameroon.

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Research

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Abstract

Background: In Cameroon, 23% of married women, 34% of sexually active single women have unmet needs for family planning and 58% of the reproductive age patients are not interested in family planning. While a long acting contraception such as intra uterine device is known to be safe, highly effective, and cost effective; less than 1% of reproductive age women in Cameroon use a long acting reversible contraception. These contribute to Cameroon's mother mortality rate of 600 per 100,000 live births. In this study, we tried to identify the determinants of use or none use of long acting contraception among Cameroonian women using a modern contraception so that they can be acted upon to improve long acting contraception use in cameroon.

Methods: The study uses data from 2,231 women aged 15 to 49 years old, using a modern contraception and included in the demographic health survey of Cameroon 2018/19. Bivariate, then multivariate logistic regression analysis was conducted for the study outcome of short versus long term modern contraception. Statistical significance was taken at $p < 0.05$.

Results: Among women using a modern contraception in Cameroon, 45.4% were using a long acting contraception. The mean determinants for this were: increase age, being more than 10 people in the household, belonging to the poorer and middle economic quintiles, being insulted or made to feel bad sometimes by the husband or the partner.

Conclusion: To improve the use of long acting contraception among women using a modern contraception in Cameroon, a special consideration should be given to women experiencing domestic violence without forgetting the other determinants.

Plain English Summary

In Central and West Africa, 10% of women between 15 and 19 years old have a baby. Cameroon is a lower middle income country in central Africa. Here, 600 women die for every hundred thousand life births. In high schools, young ladies, when found pregnant are expelled from school if they are not married. In addition to this 23 women out of one thousand risked their lives in 2010 through clandestine abortion. Long acting contraceptives are an affordable and reliable solution to prevent unwanted pregnancies. This is the reason why we seek to identify the reason why women using a modern contraception in Cameroon choose to or not to use a long acting contraception.

We got information on 2,231 Cameroonian women aged 15 to 49 years old from the demographic health survey 2018/19 of Cameroon. This is a nationally representative data collection on the population of Cameroon, except for the south west region. This data include information on procreation, contraception, sociodemographic data and more. We analysed this data and found out that among women using a modern contraception in Cameroon, almost half of them use a long acting contraception. They do so because of increasing age, economic constrain, being insulted or made to feel bad by the husband or partner or when they are more than ten people in the household.

Among women using a modern contraception in Cameroon, those corresponding to the above description can be targeted first in long acting contraception promotion.

Background

Contraception is the means used to prevent pregnancy(1). In line with the sustainable development goal indicator number 3.7.1, 75.7% of the needs of women for contraception were supposed to be met by 2019 but less than half of these needs have been met in middle and west Africa(2). Here we define a need for contraception as a fertile woman who is not pregnant and wants to delay her next child birth for at least two years; women whose current pregnancy is unwanted or consecutive to the failure of a family planning or; a woman in the postpartum period whose last childbirth in the last 2 years was unwanted or consecutive to the failure of a family planning. Meeting these needs implies giving to every woman the modern contraception method that corresponds to her needs and her preferences.

In central and west Africa each woman has on average 5 to 6 children and 10% of girls aged between 15 and 19 years have a baby. Each year, 100,000 women are dying of avoidable pregnancies in central and west Africa; all this illustrating the 24% unmet women's needs for contraception for in these regions(3).

Cameroon is a lower middle income country, located in central Africa, with a population of roughly 25 million people and a sex ratio of 1 in 2018 (4). In Cameroon, 23% of married women and 34% of sexually active single women have unmet needs for family planning (5) around 48% of sexually active unmarried women use any type of contraception and less than 1% of women in Cameroon use long-acting reversible contraception. Some of the barriers to accessing contraception in Cameroon include several misconceptions about contraception, the cost, the limited options, and so on (6–8). This partly explains the high level of unplanned pregnancies and the mother mortality rate, which is at 600 per 100,000 live births. Providing access to their favorite contraceptive method to these women can improves the health of all Cameroonians and the standard of life. A spacing of birth of 2 to 3 years reduces the infant mortality rate by 45% compared to when this is less than 2 years. This explains why it is important to identify these determinants of use or none use of the different types of contraceptives by women in Cameroon, mainly the long-acting ones. This will allow us to act promptly on them to feel the gap of unmet need for family planning more efficiently and effectively; thereby contributing to the development of Cameroon by improving the literacy rate and the rights of women, maternal mortality, and neonatal mortality among others(2, 9). Meeting these needs may also contribute to reduce the proportion of women who currently are not interested by any family planning which is at 58% (5). These are the reasons why, we asked ourselves; what the determinants for the use or none use of long acting contraceptive methods among women are in Cameroon?

Methods

Study Design

The study was a retrospective cross-sectional study that abstracted data from the 2018 demographic health survey (DHS) data set of Cameroon.

Study Population

The study population consisted of women of reproductive age: 15-49 years old who consented to participate in the DHS program and who were using a modern contraception. From this population were excluded women with incomplete data on current family planning method.

Study variables

The study variables analysed included socio-demographic and behavioural variables and are as listed: age, marital status, number of co-wives, age at first cohabitation, highest educational level, religion, work status, region, type of place of residence (urban/rural), number of children born, number of sons dead, daughters dead, number of children alive, sex of children, number of household members, number of children under 5 in households, sex of household head, age of household head, wealth index combined, wealth index for urban/rural, ever had a terminated pregnancy, time since last sex, desire for more children, husband's desire for children, exposure to need for contraception, decision maker for using contraception, person who usually decides on respondent's health care, ever been humiliated by husband/partner, ever been threatened with harm by husband/partner, ever been insulted or made to feel bad by husband/partner, ever experienced any form of violence, covered by health insurance, number of caesarean deliveries.

Data Management

Data was cleaned and analysed using R version 4 for windows. The recording of variables and the study outcomes was done as per previous literatures. The study objective was to assess factors influencing the use of long term modern contraceptive among modern contraception users. A binary outcome variable was generated by coding 1 for those who were classified as using long-term contraceptives and 0 for those using short-term contraceptives. The outcomes were classified as shown in table 1.

Study Variables

The study variables analysed included socio-demographic and behavioural variables and are as listed: age, marital status, number of co-wives, age at first cohabitation, highest educational level, religion, work status, region, type of place of residence (urban/rural), number of children born, number of sons dead, daughters dead, number of children alive, sex of children, number of household members, number of children under 5 in households, sex of household head, age of household head, wealth index combined, wealth index for urban/rural, ever had a terminated pregnancy, time since last sex, desire for more

children, husband's desire for children, exposure to need for contraception, decision maker for using contraception, person who usually decides on respondent's health care, ever been humiliated by husband/partner, ever been threatened with harm by husband/partner, ever been insulted or made to feel bad by husband/partner, ever experienced any form of violence, covered by health insurance, number of caesarean deliveries.

Data Analysis

Data was analysed using R version 4.0 for Windows. The participant characteristics were presented by use of frequencies and percentages for categorical variables and were stratified by type of family planning method. Difference between these groups were assessed by use of chi-square statistics and fisher's exact count for variables that had cell counts less than 5. The prevalence of family planning use was presented by use of frequencies and percentages. Bivariate logistic regression analysis was conducted for the study outcome of long-term versus short-term contraceptives. Variables that had a $p < 0.1$ in the bivariate logistic regression analysis were fit in the multivariate logistic regression analysis. All the study data was weighed. Associations were reported by use of unadjusted and adjusted odds ratios with their respective 95% confidence intervals (CIs). Statistical significance is taken at $p < 0.05$.

Results

Participants' characteristics

The study analysed data from 2,231 women aged 15 to 49 years old. All the participants had had sex at least once in their lives. We found that the biggest age category in this group is 20 to 29 years old, representing 46% (1,032 women) of the studied population. Of all the women included in the study, 69% (1,544 women) were living in an urban area and 31% (687 women) in the rural area; 54% (1,195) were married or cohabiting, 46% (1,036) were single, separated or widowed.

Long and short acting contraception among women using modern contraception.

Of the 2,231 women who used modern methods, 45.4% used long acting methods compared to 54.6% who used short acting methods.

a. Factors associated with the use of short or long acting modern contraception among women using modern contraception.

The use of short acting contraception among women using modern contraception was associated with being single, separated, or widowed, age at first cohabitation below 30 years old, increasing level of

education, having children of only one sex, being in a household where a female is heading, and being in the two richest quintiles ($p < 0.05$).

The use of long acting contraception among women using modern contraception was associated with an increasing age, been in a polygamous marriage with only one co-wife, not working, living in a rural area, increasing number of household member, increasing number of children aged less than 5 years old in the household, history of terminated pregnancy, desire not to have more children, postpartum period, implication of the respondent in the decision making for the use of contraception, having had two caesarean deliveries, and finally, being a Muslim ($p < 0.05$). More can be found in Table 2.

b. Independent determinants for the use of modern long acting or short acting contraception among women using a modern contraception

An increase in age was positively associated with the likelihood of using long acting methods relative to short acting methods. Being more than 10 people in the household was associated with more than three folds increase in the use of long acting contraception (aOR = 3.59, 95% CI [1.29 - 10.0], $p = 0.015$). Belonging to the poorer (aOR = 2.88, 95% CI [1.17 - 7.11], $P = 0.023$) and middle economic quintiles (aOR = 2.89, 95% CI [1.10 - 7.61], $P = 0.033$), being insulted or made to feel bad sometimes by the husband or the partner (aOR = 2.83, 95% CI [1.19 - 6.70], $p = 0.019$) were associated with an almost three folds increase in the use of long acting contraception.

In this population, secondary level education (aOR = 0.30, 95% CI [0.10 - 0.90], $P = 0.033$) and living in a household whose head is aged between 50 and 59 years old (aOR = 0.30, 95% CI [0.12 - 0.76], $P = 0.012$) were associated with a less likelihood in the use of long acting modern contraception. Living in the west region was associated with a less likelihood in the use of long acting contraception (aOR = 0.16, 95% CI [0.03 - 0.94], $P = 0.043$) among those using a modern contraception.

Discussion

Among modern contraception users, 45.4% used long acting methods and 54.6% used short acting methods. This is similar to findings obtained in 2018 in Burkina Faso and Kenya, with 46.25% and 53.75%, 45% and 55% respectively (10). The independent determinants for the use of long acting contraception among this population in Cameroon were increasing age; being more than 10 in the household; belonging to the poorer or middle economic quintiles; and being insulted or made to feel bad sometimes by the husband or the partner. This gives the impression that women use long term contraception as a way to prevent further expansion of the family in resource limited conditions, especially if they feel they don't have the support of their partners. This might make long acting contraception to be particularly interesting to these women because they can easily dissimulate it to their partner contrary to the short acting contraceptives. This is corroborated by the findings among mothers in

Uganda who presented ease of dissimulation to their partner as the reason for their choice of injectable contraceptives(11).

Further explorations will be needed to understand the reason why being in the west region makes it less likely to use a long acting contraception.

Conclusion

This study shows that long acting contraception can be a consideration for all women experiencing domestic violence. It also shows that to promote the use of long acting contraception in Cameroon, a special consideration should be given to the west region.

Abbreviations

DHS: Demographic Health Survey

Declarations

Ethics approval and consent to participate

The Comité National d'Éthique de la Recherche pour la Santé Humaine (CNERSH) of the ministry of public health of Cameroon and the Institutional Review Board of ICF approved the study protocol, survey instruments and materials prior to the commencement of the survey. Individual written consent was obtained during the data collection process for all participants ages 15 to 49. This research analysed a secondary data after an application requesting for the use of the 2018 Cameroon Demographic and Health Survey data was sent to the Demographic Health Surveys (DHS) representative. Data was then used after approval was granted.

Consent for publication

Not Applicable.

Availability of data and materials

The datasets generated and/or analyzed during the current study are available in the Cameroon demographic and health repository, <http://dhsprogram.com/data/available-datasets.cfm>

Competing interests

The authors declare that they have no competing interests

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Not applicable

Authors' contributions

Michael Guy TOGUEM did the whole work

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Tables

Table 1: Categories definition

Modern contraceptives		
Short acting	Long acting	
	Reversible	None reversible
<ul style="list-style-type: none"> - Morning after pill - male condom - female condom 	<ul style="list-style-type: none"> -Intra uterine device - injectables - implants - pill. - other modern method 	<ul style="list-style-type: none"> -female sterilization -male sterilization

Table 2: univariate regression comparing the use of modern long acting vs short acting contraception

Characteristic	OR ¹	95% CI ¹	p-value
Age (years)			
<i>19 and below</i>	—	—	
<i>20-29</i>	3.97	2.70, 5.84	<0.001
<i>30-39</i>	7.89	5.34, 11.6	<0.001
<i>40-49</i>	12.0	7.65, 18.9	<0.001
Marital status			
<i>Married/Cohabiting</i>	—	—	
<i>Single/Separated/Widowed</i>	0.23	0.18, 0.28	<0.001
Number of co-wives			
<i>None</i>	—	—	
<i>One</i>	2.15	1.28, 3.59	0.004
<i>Two</i>	2.45	0.98, 6.16	0.057
<i>Three and more</i>	3.54	0.40, 31.4	0.3
<i>Don't know</i>	1.03	0.47, 2.23	>0.9
Age at first cohabitation			
<i>10-14</i>	—	—	
<i>15-19</i>	0.53	0.36, 0.79	0.002
<i>20-24</i>	0.53	0.34, 0.83	0.006
<i>25-29</i>	0.30	0.18, 0.52	<0.001
<i>30 +</i>	1.05	0.42, 2.59	>0.9
Highest educational level			
<i>No education</i>	—	—	
<i>Primary</i>	0.34	0.18, 0.62	<0.001
<i>Secondary</i>	0.14	0.08, 0.25	<0.001
<i>Higher</i>	0.08	0.04, 0.15	<0.001
Religion			

Characteristic	OR ¹	95% CI ¹	p-value
<i>Catholic</i>	—	—	
<i>Protestant</i>	1.11	0.83, 1.49	0.5
<i>Other Christians</i>	1.44	1.05, 1.96	0.023
<i>Muslim</i>	1.84	1.27, 2.66	0.001
<i>Animist</i>	1.98	0.42, 9.31	0.4
<i>None</i>	1.05	0.49, 2.23	>0.9
<i>Other</i>	1.30	0.33, 5.04	0.7
Work status			
<i>Working</i>	—	—	
<i>Not Working</i>	2.01	1.60, 2.52	<0.001
Region			
<i>Adamawa</i>	—	—	
<i>Centre (without Yaounde)</i>	0.33	0.14, 0.80	0.015
<i>Douala</i>	0.18	0.08, 0.44	<0.001
<i>East</i>	0.42	0.17, 1.03	0.058
<i>Far-North</i>	1.35	0.45, 4.03	0.6
<i>Littoral (without Douala)</i>	0.45	0.17, 1.16	0.10
<i>North</i>	1.66	0.64, 4.25	0.3
<i>North-West</i>	0.34	0.13, 0.89	0.029
<i>West</i>	0.17	0.07, 0.42	<0.001
<i>South</i>	0.89	0.32, 2.47	0.8
<i>South-West</i>	0.21	0.07, 0.64	0.006
<i>Yaounde</i>	0.23	0.10, 0.56	0.001
Type of place of residence			
<i>Urban</i>	—	—	
<i>Rural</i>	1.63	1.27, 2.07	<0.001

Characteristic	OR ¹	95% CI ¹	p-value
No. of children born			
<i>1</i>	—	—	
<i>2-3</i>	2.69	1.98, 3.66	<0.001
<i>4 +</i>	1.70	1.30, 2.22	<0.001
No of sons died			
<i>One</i>	—	—	
<i>One</i>	—	—	
<i>Two</i>	2.54	1.76, 3.69	<0.001
<i>Three</i>	3.54	1.43, 8.79	0.007
No. of daughters died			
<i>One</i>	—	—	
<i>One</i>	—	—	
<i>Two</i>	3.10	2.09, 4.61	<0.001
<i>Three</i>	2.33	1.03, 5.28	0.044
No. of children alive			
<i>One</i>	—	—	
<i>Two</i>	2.57	1.87, 3.54	<0.001
<i>Three</i>	1.52	1.15, 1.99	0.003
Sex of children			
<i>Both female and male</i>	—	—	
<i>Female only</i>	0.35	0.26, 0.48	<0.001
<i>Male only</i>	0.36	0.27, 0.49	<0.001
Number of household members			
<i>1-3</i>	—	—	
<i>4-5</i>	1.30	0.92, 1.83	0.13
<i>6-10</i>	1.60	1.16, 2.20	0.004

Characteristic	OR ¹	95% CI ¹	p-value
<i>11 +</i>	2.09	1.42, 3.07	<0.001
Number of children under 5 in households			
<i>None</i>	—	—	
<i>One</i>	1.39	1.10, 1.76	0.007
<i>Two</i>	1.58	1.21, 2.06	<0.001
<i>3 +</i>	2.47	1.79, 3.41	<0.001
Sex of household head			
<i>Male</i>	—	—	
<i>Female</i>	0.60	0.48, 0.75	<0.001
Age of household head			
<i>29 and below</i>	—	—	
<i>30-39</i>	1.58	1.15, 2.18	0.006
<i>40-49</i>	1.42	1.02, 1.97	0.036
<i>50-59</i>	0.84	0.58, 1.21	0.4
<i>60 +</i>	1.18	0.83, 1.68	0.4
Wealth index combined			
<i>Poorest</i>	—	—	
<i>Poorer</i>	1.02	0.57, 1.85	>0.9
<i>Middle</i>	0.80	0.44, 1.43	0.4
<i>Richer</i>	0.53	0.31, 0.93	0.027
<i>Richest</i>	0.38	0.21, 0.67	<0.001
Wealth index for urban/rural			
<i>Poorest</i>	—	—	
<i>Poorer</i>	0.44	0.31, 0.63	<0.001
<i>Middle</i>	0.43	0.29, 0.65	<0.001
<i>Richer</i>	0.38	0.26, 0.56	<0.001

Characteristic	OR ¹	95% CI ¹	p-value
<i>Richest</i>	0.36	0.25, 0.53	<0.001
Ever had a terminated pregnancy			
<i>No</i>	—	—	
<i>Yes</i>	1.78	1.41, 2.24	<0.001
Time since last sex			
<i>0 days</i>	—	—	
<i>1 day</i>	1.49	0.59, 3.75	0.4
<i>2 days</i>	1.20	0.49, 2.91	0.7
<i>3-6 days</i>	1.36	0.58, 3.17	0.5
<i>7-14 days</i>	0.81	0.36, 1.83	0.6
<i>15 +</i>	0.64	0.28, 1.46	0.3
Desire for more children			
<i>Wants within 2 years</i>	—	—	
<i>Wants after 2+ years</i>	1.20	0.85, 1.69	0.3
<i>Wants, unsure timing</i>	0.72	0.50, 1.04	0.080
<i>Undecided</i>	1.50	0.84, 2.66	0.2
<i>Wants no more</i>	3.18	2.26, 4.47	<0.001
<i>Declared infecund</i>	1.68	0.76, 3.73	0.2
Husband's desire for children			
<i>Both want same</i>	—	—	
<i>Husband wants more</i>	1.23	0.88, 1.71	0.2
<i>Husband wants fewer</i>	0.77	0.42, 1.40	0.4
<i>Don't know</i>	1.09	0.75, 1.60	0.7
Exposure to need for contraception (definition 3)			
<i>Fecund</i>	—	—	
<i>Postpartum amenorrheic</i>	2.27	1.59, 3.22	<0.001

Characteristic	OR ¹	95% CI ¹	p-value
Decision maker for using contraception			
<i>Mainly respondent</i>	—	—	
<i>Mainly husband, partner</i>	0.38	0.25, 0.58	<0.001
<i>Joint decision</i>	0.47	0.33, 0.66	<0.001
Person who usually decides on respondent's health care			
<i>Respondent alone</i>	—	—	
<i>Respondent and husband/partner</i>	0.89	0.56, 1.41	0.6
<i>Husband/partner alone</i>	0.84	0.53, 1.34	0.5
<i>Someone else</i>	0.20	0.01, 3.25	0.3
Ever been humiliated by husband/ partner			
<i>Never</i>	—	—	
<i>Often</i>	1.26	0.63, 2.51	0.5
<i>Sometimes</i>	1.23	0.66, 2.30	0.5
<i>Yes, but not in the last 12 months</i>	2.02	0.95, 4.26	0.067
Ever been threatened with harm by husband/ partner			
<i>Never</i>	—	—	
<i>Often</i>	0.72	0.40, 1.30	0.3
<i>Sometimes</i>	2.02	0.99, 4.14	0.055
<i>Yes, but not in the last 12 months</i>	2.60	1.24, 5.45	0.012
Ever been insulted or made to feel bad by husband/ partner			
<i>Never</i>	—	—	
<i>Often</i>	1.01	0.52, 1.95	>0.9
<i>Sometimes</i>	3.05	1.60, 5.83	<0.001
<i>Yes, but not in the last 12 months</i>	1.54	0.76, 3.09	0.2
Ever experienced any form of violence			
<i>Never</i>	—	—	

Characteristic	OR ¹	95% CI ¹	p-value
<i>Yes</i>	1.44	1.00, 2.07	0.054
Covered by health insurance			
<i>No</i>	—	—	
<i>Yes</i>	0.89	0.49, 1.63	0.7
No. of caesarian deliveries			
<i>None</i>	—	—	
<i>One</i>	1.56	0.86, 2.83	0.14
<i>Two</i>	5.70	1.46, 22.3	0.013

¹OR = Odds Ratio, CI = Confidence Interval

Table 3: multivariate regression comparing the use of long acting vs short acting contraception

Characteristic	aOR ¹	95% CI ¹	p-value
Age (years)			
19 and below	—	—	
20-29	3.29	1.32, 8.21	0.011
30-39	4.19	1.63, 10.8	0.003
40-49	6.82	2.15, 21.6	0.001
Marital status			
Married/Cohabiting	—	—	
Single/Separated/Widowed	0.56	0.31, 1.01	0.057
Highest educational level			
No education	—	—	
Primary	0.39	0.14, 1.11	0.078
Secondary	0.30	0.10, 0.90	0.033
Higher	0.43	0.11, 1.61	0.2
Religion			
Catholic	—	—	
Protestant	0.87	0.54, 1.40	0.6
Other Christians	1.33	0.62, 2.85	0.5
Muslim	0.99	0.51, 1.90	>0.9
Animist	.	.	.
None	1.34	0.28, 6.44	0.7
Other	3.24	0.28, 38.0	0.4
Work status			
Working	—	—	
Not Working	0.81	0.48, 1.37	0.4
Region			
Adamawa	—	—	

Characteristic	aOR ¹	95% CI ¹	p-value
Centre (without Yaounde)	0.49	0.09, 2.64	0.4
Douala	0.22	0.04, 1.19	0.080
East	0.41	0.07, 2.32	0.3
Far-North	0.70	0.11, 4.41	0.7
Littoral (without Douala)	0.44	0.08, 2.35	0.3
North	1.71	0.28, 10.6	0.6
North-West	0.23	0.04, 1.35	0.11
West	0.16	0.03, 0.94	0.043
South	1.13	0.20, 6.37	0.9
South-West	0.39	0.06, 2.62	0.3
Yaounde	0.21	0.04, 1.10	0.066
Type of place of residence			
Urban	—	—	
Rural	1.04	0.55, 1.95	>0.9
No. of children born			
1	—	—	
2-3	2.47	0.28, 21.7	0.4
4 +	1.88	0.17, 21.1	0.6
Number of household members			
1-3	—	—	
4-5	0.99	0.54, 1.83	>0.9
6-10	1.92	0.99, 3.71	0.054
11 +	3.59	1.29, 10.0	0.015
Number of children under 5 in households			
None	—	—	
One	0.71	0.39, 1.28	0.3

Characteristic	aOR ¹	95% CI ¹	p-value
Two	0.63	0.32, 1.25	0.2
3 +	0.61	0.25, 1.50	0.3
No of sons died			
One	—	—	
One	—	—	
Two	0.88	0.48, 1.63	0.7
Three	0.66	0.16, 2.75	0.6
No. of daughters died			
One	—	—	
One	—	—	
Two	1.49	0.69, 3.22	0.3
Three	2.16	0.38, 12.2	0.4
No. of children alive			
One	—	—	
Two	1.12	0.13, 9.44	>0.9
Three	1.58	0.14, 17.3	0.7
Sex of household head			
Male	—	—	
Female	0.85	0.49, 1.45	0.5
Age of household head			
29 and below	—	—	
30-39	0.73	0.35, 1.52	0.4
40-49	0.62	0.28, 1.37	0.2
50-59	0.30	0.12, 0.76	0.012
60 +	0.95	0.40, 2.28	>0.9
Wealth index combined			

Characteristic	aOR ¹	95% CI ¹	p-value
Poorest	—	—	
Poorer	2.88	1.17, 7.11	0.023
Middle	2.89	1.10, 7.61	0.033
Richer	2.18	0.73, 6.54	0.2
Richest	2.48	0.76, 8.09	0.13
Ever had a terminated pregnancy			
No	—	—	
Yes	1.18	0.75, 1.87	0.5
Time since last sex			
0 days	—	—	
1 day	1.05	0.20, 5.57	>0.9
2 days	0.79	0.15, 4.33	0.8
3-6 days	0.81	0.16, 4.13	0.8
7-14 days	0.68	0.13, 3.67	0.7
15 +	0.78	0.15, 4.00	0.8
Ever been threatened with harm by husband/partner			
Never	—	—	
Often	0.45	0.18, 1.08	0.075
Sometimes	0.95	0.39, 2.31	>0.9
Yes, but not in the last 12 months	2.01	0.67, 6.08	0.2
Ever been insulted or made to feel bad by husband/partner			
Never	—	—	
Often	2.15	0.84, 5.51	0.11
Sometimes	2.83	1.19, 6.70	0.019
Yes, but not in the last 12 months	1.09	0.42, 2.86	0.9
No. of caesarian deliveries			

Characteristic	aOR ¹	95% CI ¹	p-value
None	—	—	
One	1.73	0.63, 4.74	0.3
Two	3.67	0.85, 15.9	0.083

¹aOR = adjusted Odds Ratio, CI = Confidence Interval