International Journal of Community Medicine and Public Health
Njoumemi Z et al. Int J Community Med Public Health. 2024 Aug;11(8):3001-3010
http://www.ijcmph.com
pISSN 2394-6032 | eISSN 2394-6040

DOI: https://dx.doi.org/10.18203/2394-6040.ijcmph20242158

Original Research Article

Economic and social determinants of women's demand for modern family planning methods in Cameroon

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Received: 06 June 2024
Revised: 12 July 2024
Accepted: 15 July 2024

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ABSTRACT

Background: In low-income countries, the demand of family planning methods can help to address the imbalance between the population growth rate and the volume of the production of wealth. However, the contraceptive prevalence remains low in resources limited countries. Different strategies have been used to encourage the demand of modern family planning methods. This article examined the economic and social determinants of women's demand for modern family planning methods in Cameroon.
Methods: A cross-sectional study design was used with a two-stage stratified sampling, including 9,633 women of childbearing age. A logistic regression model was used for bivariate and multivariate analysis with a statistically significant level of $p<0.05$.
Results: Women's demand for modern family planning methods was relatively low (28.8%). Demand for modern family planning methods was significantly associated ($p<0.05$) with women's economic and social characteristics, such as age groups (15 to 24 and 35 to 49), level of education (possibly for the spouse too), experiencing domestic violence, professional status, religion, place of residence, income, access to the media and place for antenatal visits, and women living in west, south and south-west, Adamawa, extreme-north, and Littoral regions. However, the women's demand for modern family planning methods was non-significantly associated ($p>0.05$) with age between 25 and 34, marital status and women living in east, north and north-west regions.
Conclusions: With a view of reducing poverty by controlling the birth rate, decision-makers should strive to improve economic and social conditions and raise women's awareness of how to demand family planning methods.

Keywords: Cameroon, Demand, Economic and social determinants, Modern family planning methods, Women

INTRODUCTION

The pro-natalist behaviour that leads to high fertility rates has long been considered to be one of the characteristics of populations in low- and middle-income countries.[1-3] Indeed, the population growth rates are higher than the production of goods and services, particularly food, the immediate consequence in most low- and middle-income countries, thereby leading to widespread and structural poverty.[3-5] Despite differing opinions on the family

planning options, many low income countries have been able to experiment all possible strategies to encourage demand for modern family planning methods with a view to increasing acceptance or adherence by the target population.[6-8] The modern methods of family planning include sterilization, injectables, intrauterine devices (IUDs/PPIUDs), family planning pills, implants, the standard day's method, condoms, diaphragm, foam/jelly, the lactational amenorrhea method, and emergency family planning method.[9] It is an action that has been integrated into the millennium development goals (MDGs), which consists of reversing the trend in infant and maternal mortality, reducing poverty by 'avoiding unwanted and closely spaced pregnancies'.[10,11] Indeed, the demand for modern family planning s is closely linked to people's ability to make potential choices about their reproductive lives and childbirth preferences.[12] Modern family planning s are one of the main cost-effective strategies for stimulating economic and social growth through determinants such as education, gender equality, human rights, and the reduction of sexually transmitted diseases and poverty.[11,13] Globally, the number of women of childbearing age (aged 15-49 years) has risen from 1.3 billion in 1990 to 1.9 billion in 2021, an increase of 46%.[14] Thus, there has been a significant increase in the number of women of childbearing age who need family planning, i.e. who are married or in union, or single and sexually active, who are fertile and intend to delay or avoid childbearing.[14] However, globally in 2019, despite the growing need for modern family planning s and the desire for family planning, it is estimated that only 8 million young people and women aged 15-49 years are demanding modern family planning s, leaving 27 million girls and women with an unmet need, while in low- and middle-income countries, more than 20 million women wishing to avoid pregnancy are not demanding modern family planning s, contributing to 84% of unintended pregnancies tries.[15-17]

In Cameroon, fertility remains high and family planning demand low despite considerable socio-economic progress.[18] In addition to strategic awareness-raising measures demanding media and non-media communication, it is important to note that over the last three decades, family planning has been a priority for government action.[19] The number of initiatives are set out in documents such as: the roadmap for the reduction of maternal and neonatal mortality (2006-2015), the strategic plan campaign to accelerate the reduction of maternal mortality (2011-2013), the strategic plan for reproductive health, maternal, neonatal and child health (2014-2020) and the family planning operational plan (2015-2020), one of whose objectives was to achieve a modern family planning prevalence rate of 30% in 2020 among women aged 15-49 years.[20] The creation and implementation of a National Multisectoral Programme to Combat Maternal, Newborn and Child Mortality, with family planning as a priority to reduce maternal mortality and improve the health of mothers and children.[21] Several factors determine the demand for modern family planning methods, including socio-economic determinants.[9,22,23] In other African countries, it has been reported that unfavourable socio-economic and cultural factors such as low levels of education, absence or lack of access to the media, absence or lack of knowledge about family planning, low levels of household wealth, religion and ethnicity remain obstacles to the demand for modern family planning methods.[9,22,23] Throughout the literature, inequality of these economic and socio-cultural factors had an influence on the demand of modern family planning methods.

Indeed, in Cameroon, we found relatively scarce work on the demand for modern family planning methods as most of the previous studies from the county only looked at the overall family planning methods use and community perception of the determinants of unmet need for family planning among married and non-married women in some urban, levels and trends in contraceptive prevalence and predictors of family planning use.[18-20] Therefore, to the best of our knowledge, this research is one among the few studies from Cameroon to report on economic and social inequalities in women's demand for modern family planning methods in Cameroon. Generating more clear evidence will have significant policy consequences for achieving SDG 3.7, which targets universal access to family planning services and promote healthy lives and well-being.[11]

Thus, this study aimed to examine the economic and social inequalities that contributes to women's demand for modern family planning methods in Cameroon.

METHODS

Study design

This study used population-level secondary data from the fifth Cameroon Demographic and Health Survey 2018 (DHS-V) to analyze economic and social inequalities in women's demand for modern family planning methods in Cameroon.[24]

Study site and period

The site of this study was the households with women of childbearing age across all 10 regions of Cameroon. The data collection was conducted for the period of 16th June 2018 to 19th January 2019 during which the DHS-V was implemented by the national institute of statistics in partnership with the Ministry of Public Health.

Sampling technique

A stratified nationwide, two-stage sampling technique was used to select the clusters and the households within each cluster. In each selected household, all women of childbearing aged 15-49 years were eligible to participate in the study.

Selection criteria

In this sampling technique, all eligible women of childbearing aged 15-49 years who voluntarily give and sign their informed consent forms were included in the study. Conversely, any childbearing woman aged 15-49 years who refused to voluntarily give and sign her informed consent, was excluded from the study.

Sample size

In line with both the inclusion and exclusion criteria, the study involved a total sample of 9,733 of women of childbearing age of 15 to 49 years.

Data collection

DHS-V data were obtained from ICF International Macro Demographic and Health Surveys through online registration and a formal request for access to the dataset. Additional authorization was requested from the Ministry of Public Health and the National Institute of Statistics of Cameroon. The DHS-V survey, which focused mainly on maternal and child health issues, collected information on women demand and utilization of family planning methods. Respondents were classified as women who had demanded and women who did not demand any modern family planning methods in the last year. The data were managed by identifying, sorting, and extracting relevant variables indicating the women's response on modern family planning methods demanded or not in line with the economic and social characteristics of the respondents.

Statistical analysis

The data analysis adopted a logistic regression model where the dependent variable is a binary indicator "women's demand for modern family planning methods" which indicates whether a woman requests a modern family planning method to space or limit births in order to achieve the desired number of children. The independent variables are a set of economic, social and demographic indicators with 2 or more modalities. The model therefore constructs a binary logistic model to estimate the probability of a binary response as a function of a set of predictor variables. The set of independent variables includes the woman's characteristics, including: quintile of economic well-being, employment status, age group, religion, highest level of education and that of spouse, marital status, domestic violence, access to the media, place of access to antenatal care, region of residence, and geographical area of residence. Our dependent variable "women's demand for modern family planning methods" is defined as follows:

$$y_i = \begin{cases} 1 & \text{If the woman demands a modern family planning method} \\ 0 & \text{If not} \end{cases}$$

Let y_i^* be the unobserved variable defined by $y_i^* = x_i\beta + \varepsilon_i$ where ε_i is a random variable with mean zero and standard deviation σ_ε, with $\frac{\varepsilon_i}{\sigma_\varepsilon}$ which follows a logistic distribution function $\phi(x) = \frac{\exp(x)}{1+\exp(x)}$. The multivariate logistic regression model inspired by Nugroho et al and Kamuyango et al were used to assess the relationship between the inequalities in the demand for modern family planning methods by women of childbearing age and a range of economic, social and demographic indicators that may influence this demand.[25,26] Considering the latent variable y_i^* as follows:

$$\begin{cases} y_i = 1 \text{ if } y_i^* > 0 \\ y_i = 0 \text{ if } y_i^* \leq 0 \end{cases}$$

The model to be estimated can be written as follows: $y_i^* = \beta_0 + \beta\, x_i + \varepsilon_i$

With the following detailed specifications: $y_i^* = \beta_0 + \beta_1 x_{1i} + \beta_2 x_{2i} + \beta_3 x_{3i} + \beta_4 x_{4i} + \beta_5 x_{5i} + \beta_6 x_{6i} + \beta_7 x_{7i} + \beta_8 x_{8i} + \beta_9 x_{9i} + \beta_{10} x_{10i} + \beta_{11} x_{11i} + \beta_{12} x_{12i} + \varepsilon_i$

Where: β is a vector of coefficients for the model to be estimated; β_0, is the constant term and ε_i is the error term. Therefore, $\beta_0, \beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}, \beta_{11}, \beta_{12}$

are coefficients of the model to be estimated and ε_i is the error term.

x_i is a set of economic and social factors that can influence the woman's demand for modern family planning methods: x_{1i}: woman's age (years) i; x_{2i}: education level of the woman i; x_{3i}: education level of the woman's husband i; x_{4i}: marital status of the woman i; x_{5i}: employment status of the woman i; x_{6i}: religion of the woman i; x_{7i}: economic welfare status of the woman i; x_{8i}: accessibility to media by the woman i; x_{9i}: woman's experiencing domestic violence i; x_{10i}: place of antenatal care attendance by the woman i; x_{11i}: region of residence the woman i; and x_{12i}: residence area of the woman i.

Data analysis was performed in Excel and Stata software (version 14). Odds ratios were calculated. The data of this study was initially analysed on the basis of descriptive statistics and the Chi square dependence test. This technique provided an initial view of the level of association between women's demand for modern family planning methods and the economic and social determinants. The data analysis used two techniques: descriptive analysis (bivariate and multivariate) and multivariate explanatory analysis. Different associations were made and the results were considered statistically significant at a 95% confidence level with $p<0.05$.

Ethical approval

Ethical approval was obtained from the ethical review committee for the protection of human subjects and adult women of childbearing age participants provided written consent for themselves prior to enrolment in the study.

RESULTS

Economic, social and demographic characteristics of women

The study involved a total sample of 9,633 women of childbearing aged between 15 and 49 years. Table 1 presents the economic and socio-demographic characteristics of women of childbearing age in Cameroon and shows a bivariate analysis of the demand for modern family planning methods among these women. Women who demanded modern family planning method were in the minority (28.8%) compared with (71.2%) women who did not demand any family planning method. This analysis shows that there is a statistically significant difference between demand for the modern family planning method and a set of economic, social and demographic variables. In terms of age, the majority (49.53%) of women were in the 25-34 age group, followed by the 15-24 age group (30.92%) and the 35-49 age group (19.55%). The proportions of these women demanding a modern family planning method were 11.93%, 8.21% and 3.95% respectively. With regards to education, the majority of women had secondary education (38.50%), followed by primary education (33.29%), no education (23.08%) and higher education (5.14%), with demand for modern family planning method at 12.49%, 8.23%, 1.26% and 2.10% respectively. The majority of spouses had secondary education (35.40%), followed by spouses with primary education (32.99%), spouses with no education (20.75%) and finally spouses with higher education (7.71%). Here the proportions of demand for the family planning method are 10.37%, 7.94%, 0.95% and 2.89% respectively.

Table 1: Economic and socio-demographic characteristics and bivariate analysis of the respondents.

Woman's characteristics	Observations(N)	Frequency (%)	Demand for modern family planning methods (%)		P value
			No	Yes	
Woman age (years)					
15-24	2979	30.92	22.71	8.21	0.000
25-34	4771	49.53	37.6	11.93	
35-49	1883	19.55	15.6	3.95	
Women's level of education					
No education	2046	21.24	19.98	1.26	0.000
Primary	3240	33.63	25.4	8.23	
Secondary	3847	39.94	27.45	12.49	
Higher	500	5.19	3.09	2.1	
Husband's level of education					
No education	1735	18.01	17.06	0.95	0.000
Primary	2600	26.99	19.05	7.94	
Secondary	2590	26.89	16.51	10.37	
Higher	608	6.31	3.42	2.89	
Woman's marital status					
Married	7681	79.74	74.19	5.54	0.000
Not Married	1952	20.26	1.71	18.55	
Woman's employment					
No	3262	33.86	27.15	6.71	0.000
Yes	6371	66.14	48.77	17.37	
Woman's religion					
Christians	6651	69.04	48.56	20.48	0.000
Muslim	2639	27.39	24.19	3.2	
Animist/none/other	343	3.56	3.15	0.41	
Woman's economic well-being and wealth					
Poorest	1708	17.73	16.07	1.66	0.000
Poor	2286	23.73	18.84	4.89	
Middle	2331	24.19	17.79	6.4	
Richer	1895	19.67	14.16	5.51	
Richest	1413	14.66	9.05	5.62	

Continued.

Woman's characteristics	Observations(N)	Frequency (%)	Demand for modern family planning methods (%)		P value
			No	Yes	
Woman's access to media					
No	8081	83.89	65.97	17.91	0.000
Yes	1552	16.11	9.94	6.17	
Woman's experiencing domestic violence					
No	7138	74.09	56.01	18.09	0.011
Yes	2436	25.29	19.36	5.92	
Place of antenatal consultation					
Traditional birth assistance	1041	10.80	8.94	1.86	0.000
Health center assistance	8592	89.19	66.97	22.22	
Woman's region of residence					
Centre	1741	18.07	12.05	6.02	0.000
Adamaoua	734	7.61	7.03	0.59	
Littoral	1119	11.62	8.07	3.55	
East	1003	10.41	5.53	4.88	
Far-north	1299	13.48	12.27	1.21	
North	1217	12.63	11.40	1.23	
North-west	473	4.91	3.45	1.46	
West	952	9.88	6.98	2.9	
South	928	9.63	7.84	1.79	
South-west	167	1.73	1.28	0.45	
Woman's area of residence					
Urbain	4518	46.90	33.02	13.88	0.000
Rural	5115	53.09	42.89	10.2	
Total	9633	100	71.2	28.8	
Source: Authors' calculations based on DHS-V data 2018, *** p<0.01, ** p<0.05, * p<0.1					

About the marital status, the sample shows that 80.97% of women were married, with only 5.54% demanding a family planning method, compared with 18.55% of single women. The majority of women (55.64%) lived in rural areas, with 10.20% demanding a family planning method, compared with 13.88% of women in urban areas. We also note that 67.51% of the women were employed, 17.37% of whom demand the family planning method, compared with 6.71% of unemployed women. Concerning the religion, the majority of women were Christians (70.39%), followed by Muslims (26.09%), and animists, 'no religion' and women of other religions made up 3.52% of our sample. The rates of family planning demand were 20.48%, 3.20% and 0.41% respectively. The poorest and poor women made up 18.48% and 23.49% respectively, while 23.95% belonged to the medium wealth status and 19.47% and 14.52% belonged to the rich and richest status respectively. The rates of family planning demand in these categories were 1.66% and 4.89% for the poor and poorest, respectively, and 6.40%, 5.51% and 5.62% for the middle, richest and richest. Concerning the media, about 84.05% of the women in the sample had no access to the media, and the rate of family planning demand was 17.91%, compared with 6.17% for those who did. About 76.42% of the women in the sample did not experience the violence against women if the woman used the family planning methods, with a family planning- demand rate of 18.09%, compared with 22.97% of the women who experienced the violence, with a family planning- demand rate of 5.92%. In terms of the place of seeking antenatal care, about 89.30% of women had received antenatal care in a formal official health facility, compared with 10.70% in a traditional birth attendant's clinic. The percentage of women demanding the family planning method was 22.22% and 1.86% respectively. The majority of women (18.92%) were from the central region, followed by women from the Far North (13.35%), the North (12.50%) and at the bottom of the table the North West (4.86%) and the South West with only 1.72%. Here the percentages of family planning demanders were 6.02%, 1.21%, 1.23%, 1.46% and 0.55% respectively (Table 1).

Results and interpretation of the logistic regression of the family planning method demand function by women

The results of the logistic regression of the family planning method demand function are presented in Table 2. The age of the mother was found to be an important determinant of family planning demand. Compared with women in the 15-24 age group, women in the 35-49 age group were 0.8 times less likely (OR<1; p<0.05) to demand a modern family planning method. We also note that women in the '25 to 34' age group were 0.9 times less likely (OR<1; p>0.05) to demand a modern family planning method than women in the '15 to 24' age group.

Women with primary, secondary and tertiary education were respectively 2, 2.6 and 3.1 times more likely to demand a modern family planning method (OR>1; p<0.05) than women with no education. Women with primary, secondary and tertiary educated husbands were 2.2, 1.9 and 1.8 times more likely to demand a modern family planning method (OR>1; p<0.05) than women with uneducated husbands. Single women were 1.1 times more likely (OR>1; p>0.5) to demand a modern family planning method than married women.

Table 2: Logit estimation of the demand function for a modern family planning method among women in Cameroon.

Independent variable	Demand for modern family planning method (1= if the woman demands a modern family planning method; 0= otherwise)		
	OR	95% CI	P value
Woman's characteristics			
Woman age at child's birth (years)			
15-24	Ref.		
25-34	0.940	(0.837-1.101)	0.567
35-49	0.811**	(0.696-0.991)	0.040
Women's level of education			
No education	Ref.		
Primary	2.049***	(1.579-2.606)	0.000
Secondary	2.570***	(1.944-3.345)	0.000
Higher	3.096***	(2.110-4.485)	0.000
Husband's level of education			
No education	Ref.		
Primary	2.228***	(1.661-2.935)	0.000
Secondary	1.951***	(1.438-2.591)	0.000
Higher	1.831***	(1.268-2.585)	0.001
Women's marital status	2.109***	(1.385-3.151)	0.000
Married	Réf.		
Not Married	1.064	(0.921-1.184)	0.492
Women's employment			
No	Ref.		
Yes	1.257***	(1.082-1.414)	0.002
Women's religion			
Christians	Ref.		
Muslim	0.705***	(0.575-0.815)	0.000
Animist/none/other	0.517***	(0.321-0.771)	0.002
Economic welfare quintile of woman			
Poorest	Ref.		
Poorer	1.710***	(1.347-2.171)	0.000
Middle	2.142***	(1.664-2.775)	0.000
Richer	1.911***	(1.416-2.526)	0.000
Richest	2.629***	(1.896-3.591)	0.000
Woman's access to media			
No	Ref.		
Yes	1.442***	(1.222-1.655)	0.000
Woman's experiencing domestic violence			
No	Ref.		
Yes	1.298***	(1.132-1.488)	0.000
Don't know	0.184**	(0.043-0.779)	0.022
Place of prenatal consultation			
Traditional birth assistance	Ref.		
Health center assistance	1.423***	(1.119-1.761)	0.003
Woman's region			
Centre	Ref.		
Adamawa	0.600***	(0.355-0.705)	0.000
East	0.973	(0.717-1.063)	0.179

Continued.

Independent variable	Demand for modern family planning method (1= if the woman demands a modern family planning method; 0= otherwise)		
	OR	95% CI	P value
Far-north	2.928***	(2.300-3.476)	0.000
Littoral	0.824**	(0.550-0.951)	0.021
North	0.925	(0.634-1.074)	0.154
North-west	1.237	(0.873-1.481)	0.338
West	1.320*	(0.994-1.496)	0.056
South	0.680***	(0.458-0.735)	0.002
South-west	0.600***	(0.322-0.779)	0.000
Woman's area of residence			
Urbain	Ref.		
Rural	0.767***	(0.638-0.876)	0.000
Constant	0.052***	(0.020-0.051)	0.000
Number of observations	7731		
LR chi^2 (Prob>chi^2)	1254.84 (0.000)		
Pseudo R^2	14.76%		

Source: Authors' calculations based on DHS-V data 2018, *** p<0.01, ** p<0.05, * p<0.1

The data in Table 2 showed that women who experienced a domestic violence if they neglect the use of modern family planning methods were 1.2 times more likely (OR>1; p<0.05) to demand a family planning method than women who were not experienced the domestic violence.

Employed women were 1.2 times more likely (OR>1; p<0.05) to demand a modern family planning method than unemployed women. Women who were Muslim, animist, or no religion or other religion were 0.7 and 0.5 times less likely (OR<1; p<0.05) to demand a modern family planning method than Christian women of all faiths.

Women living in rural areas were 1.7 times more likely (OR>1; p<0.05) to demand a modern family planning method than women living in urban areas. Women in the poor, middle, rich and very rich income quintiles were respectively 1.7, 2.4, 1.9 and 2.6 times more likely (OR>1; p<0.05) to demand a modern family planning method than women in the very poor income quintiles. Women who had access to media were 1.4 times more likely (OR>1; p<0.5) to demand a modern family planning method than women who did not. Women who made their antenatal visits at a health centre were 1.4 times more likely (OR>1; p<0.05) to demand a modern family planning method than women who made their visits at a traditional birth attendant.

Women in the Adamawa, east, Littoral, north, south and south-west regions were respectively 0.5, 0.8, 0.7, 0.8, 0.6 and 0.5 times less likely (OR<1; p<0.05) to demand a modern family planning method than women living in the central region, while children in the far north, west and north-west regions were respectively 2.9, 1.2 and 1.1 times more likely (OR>1; p<0.05) to demand a modern family planning method than women in the central region (Table 2).

DISCUSSION

This study examined the economic, social and demographic determinants of women's demand for modern family planning methods in Cameroon. We found that our sample showed a family planning non-demand rate of 75.92%, compared with a family planning demand rate of 28.8%. This high prevalence of non-demand for family planning method is due to women's poor awareness of family planning methods and also to culture. This result is similar to those of a study carried out in Lubumbashi, in the Democratic Republic of Congo, which found that the factors negatively influencing demand for modern family planning methods are multiple, such as the lack of discussion on the subject between sexual partners, neutral and negative opinions, the low level of education among men, religion, the number of children alive or wanted, and family birth rank.[6-8]

We found a highly significant association (p<0.01) between demand for the family planning method the woman's age. Women aged 35 to 49 were significantly less likely to demand the family planning method than women aged 15 to 24. This could be explained by the fact that the vast majority of women over 35 are looking for children after securing their careers. This result is consistent with previous studies carried out in Ghana and Nigeria, which show that older women are less affected by the demand for modern family planning methods.[27,28] This finding is linked to their lower fertility rates and less active sexual desires.[29] Fear of the risk of breast cancer is another factor, according to a study of women treated at the Nouakchott Oncology Centre.[30] There was a statistically significant association (p<0.01) between spouses' level of education and demand for modern family planning method, compared with those who had not attended school. These results corroborate those of studies that have found education to be one of the most

important determinants of family planning demand.[8,31,32] A study carried out in Indonesia showed that education had an extremely important influence on the demand for family planning methods.[33] This result is explained by the fact that highly educated people are more likely to be aware of the benefits and importance of family planning demand. Another study in Nigeria also showed that educated women were more likely to demand family planning methods.[9] Education is generally considered to increase a person's knowledge as a person with a higher level of education has better knowledge on the benefice of using family planning methods. Education remains an important factor in increasing women's knowledge and use of family planning methods.[34] In addition, there was no statistically significant association between the woman's marital status and the demand for the family planning methods. We can nevertheless observe that married women were more likely to demand the family planning method than unmarried women. These results corroborate those found by a study in Indonesia.[33]

On the other hand, there was a statistically significant association ($p<0.01$) between religion and demand for family planning method. Muslim, animist, no religion and other religion women were significantly less likely (OR<1) to demand a modern family planning method than Christian women of all faiths. This result is in line with those of a study conducted in Uganda, which showed that birth control through modern family planning is considered contrary to religious beliefs. Religious beliefs about birth control and the adoption of modern family planning methods may differ.[26] Women living in rural areas were significantly more likely (OR=1.747) to demand a family planning method than women living in urban areas. While these results were in line with those of study carried out in rural Lake zone of Tanzania, they contradicted those found in other studies showing that young women in urban areas were also more likely to demand family planning in Asia and sub-Saharan Africa, particularly in Nigeria.[26,35-37]

Women in the poor (OR=1.71), middle (OR=2.142), rich (OR=1.891) and very rich (OR=2.608) income quintiles were very significantly ($p<0.01$) more likely to demand a modern family planning method than women in the very poor income quintiles. These results corroborate those found in a study of 25 sub-Saharan African countries where the authors show that differences in accessibility and price can explain the disparities observed between urban and rural areas and between rich and poor with regard to demand for sources of family planning method, respectively, and a country's income level is likely to modify these disparities.[30] Women who had access to the media were significantly more likely (OR=1.422) to demand a modern family planning method than women who did not. These results corroborate those of a study in Indonesia where the authors found that the frequency with which newspapers were read, the frequency with which television was watched and the demand for the Internet had the greatest influence on the demand for family planning method.[38]

Women who made their antenatal visits at a health centre were significantly more likely (OR=1.403) to demand a family planning method than women who made their visits at a traditional birth attendant. These results corroborate those found in other similar studies in Indonesia and Cameroon.[38,39]

Women in the Adamawa (OR=0.500), east (OR=0.873), Littoral (OR=0.724), north (OR=0.825), south (OR=0.580) and south-west (OR=0.500), were significantly less likely to demand a modern family planning method than women in the central region, while women in the far north (OR=2.828), west (OR=1.220) and north west (OR=1.137) regions were more likely to demand a family planning method than women in the Central region. These results contradict those found in a study done in Kumbo west, north west region, Cameroon which shows that women of childbearing age demand less family planning methods.[39]

Although this study has provided important information on the economic and social determinants of women's demand for modern family planning methods in Cameroon, the demand of cross-sectional design limits the likelihood for making any judgments on the changes in these determinants of the demand over time. In addition, other determinants such as several population health and health service-related factors that can influence the women's demand for modern family planning method were no included in this study. Based on these limitations the results of this study can be somewhat interpreted with some cautious before any generalization.

CONCLUSION

Access to safe, voluntary family planning is a fundamental right and is crucial for poverty reduction and women's empowerment. The aim of this study was to identify and analyse the determinants of inequality in demand for modern family planning methods in Cameroon. Our study is the first to provide documentation on the dynamics of inequality related to economic and social determinants in the demand of modern family planning methods, taking into account all regions of Cameroon. Any effort to increase contraceptive prevalence must target economic, social and demographic determinants such as age, level of education, standard of living, employment, religion, area of residence and antenatal visits, which are significantly associated with demand for family planning methods. Policy-makers should strive to improve economic and social conditions and raise household awareness in order to stimulate the demand for modern family planning methods in the country.

ACKNOWLEDGEMENTS

The authors would like to thank the ICF through The Demographic and Health Surveys (DHS) Program for approving and granting us the demand of survey datasets.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

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Cite this article as: Njoumemi Z, Fadimatou A, Njoya IN, Manouore R. Economic and social determinants of women's demand for modern family planning methods in Cameroon. Int J Community Med Public Health 2024;11:3001-10.