

# Explicative factors of the low uptake of modern contraceptives practice among women of childbearing age in Kumbo West Health District, North West Region, Cameroon

## Abstract

**Introduction:** Contraception is a main pillar for reducing maternal mortality. Modern contraceptive (MC) prevalence is low in Cameroon.

**Objective:** To analyze the explicative factors of low uptake of modern contraceptives.

**Material and methods:** This was a cross-sectional analytic study in Kumbo West health district, in the North West Region, after the Catholic University Ethical Committee approval.

A total of 250 women were interviewed on their use of MC, their socio-demographic and reproductive health characteristics. Ever users and never users of MCs were compared. Data analysis was performed using EPI-info.7.2 Odds ratio, with its 95% confidence interval (CI) was used to appreciate associations between different variables and no use of MC. The level of significance was set up at  $p < 0.05$ .

**Results:** Among the overall 250 participants, 99 had ever use MC (39.6%) and 44 women were currently under MC (17.6%). Never use of MC was associated with low level of education (68.5% vs. 31.5 %; AOR=3.64; 95% CI: 2.74-4.82;  $p=0.0001$ ); living far from the health facility (84.0% vs. 16.0%; AOR: 3.32; 95%CI: 2.23-4.95;  $p=0.0001$ ); lack of counseling on MC (93.6% vs. 5%; AOR: 2.71; 95%CI: 1.97-3.75);  $p=0.0001$ ); lack of couple discussion on MC (83.7% vs.16.3%; AOR: 3.07 (2.22-4.25);  $p=0.0001$ ); decision for MC use belonging to the partner (71.2% vs. 28.8%; AOR: 1.31 (1.9-1.45);  $p=0.0001$ ); and low monthly income less than 36 000 CFA was associated to non-use of MCs (64.9% vs. 35.1%; AOR: 2.56; 95%CI: 1.81-3.62,  $p=0.0001$ ).

**Conclusion:** MC Uptake is low in Kumbo and most explicative factors are modifiable. Program managers must use them for developing strategies if they are expecting to increase the MC use.

**Keywords:** low uptake, modern contraception, childbearing age, kumbo, Cameroon, explicative factors, low uptake

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## Introduction

According to Cameroon DHS-2011(Cameroon demographic survey), 21% of births were unplanned; the prevalence of modern contraceptive (MC) use was 16% in the whole country and 20.9% in the North West Region.<sup>1</sup> Similar findings were reported in other Africa countries with 21% in Ghana and 43.9% in Nigeria.<sup>2</sup> Contraception is one of the pillars for improving reproductive health and could help in reducing maternal mortality.<sup>3,4</sup> Contraception can be administered even immediately after abortion and during and safely in breastfeeding period.<sup>5,6</sup> Previous study in Yaoundé, City Capital of the Republic of Cameroon revealed that, MC use was significantly higher in women whose partners approved contraception, and when family planning was discussed within the couple.<sup>7</sup> A previous report in Wum district, North West, Cameroon, revealed the current MC use rate of 13%.<sup>8</sup> In the Health District of Biyem Assi in Yaoundé, authors reported that 58.9% of women were under a MC use.<sup>9</sup> The same authors revealed that, this increased by 4.14- fold in women whose partners approved contraception and by 1.93-fold when family planning, was discussed within the couple.<sup>9</sup> Little is known about the determinants of low uptake of MC in rural Cameroon.

## Objective

To identify the explicative factors of low uptake of MC in women aged 15-45 years in Kumbo West health district, in the North West Region.

## Materials and methods

This was a cross-sectional analytic study from 1<sup>st</sup> of July 2015 to 30<sup>th</sup> of August 2015 after the Ctholoc University Ethical Committee approval. The target population was parous women with a pregnancy desire, living in the study area. A total of 250 women were interviewed after a clear oral consent. Based on WHO and UN reports, we explained to them and classified MC as chemical, mechanical barriers, hormonal, intrauterine devices and sterilization.<sup>10</sup> Data was collected using researcher-administered closed ended questionnaires. Variables of interest were age, religion, level of education, distance to nearest health unit, ethnicity, monthly income, discussion with the partner on MC, decider for MC use, been counseled on MCs and use of MC. The dependent variable was ever use of modern contraceptives from teen to the time of the interview. Data analysis was conducted using Epi-Info version 7.2. Odds Ratio with 95% confidence interval was

calculated to appreciate the effect of different variables on the risk of non-use of MC. The significant level was set up at p-value <0.05.

## Results

Participant's age varied from 15 to 45 years with the mean at 25.8(SD: 6.9) in the non-MC users and from 17 to 45 with the mean at 26.95(SD: 6.5) for their counterparts. Among the overall 250 mothers, 151 had never use any MC (60.4%); 99 women had ever used any MC (39.6%), and 44 women (17.6%) were currently under MC.

Never use of MC was associated with low level of education (68.5% vs. 31.5 %; AOR=3.4; 95% CI: 2.74-4.82; p=0.0001); living far from the health facility (84.0% vs. 16.0%; AOR: 3.32; 95%CI: 2.23-4.95; p=0.0001); lack counseling on MC (93.6% vs. 5%; AOR: 2.71; 95%CI: 1.97-3.75); p=0.0001); lack of couple discussion on MC (83.7% vs.16.3%; AOR: 3.07 (2.22-4.25); p=0.0001); and decision for MC use belonging to the partner (71.2% vs. 28.8%; AOR: 1.3 (1.9-1.45); p=0.0001) (Table 1).

**Table 1** Factors associated with Non use of modern contraception

Variables	Total N=250		Never use of MC N=151		Ever use of MC N=99		COR (95%CI)	P-value	AOR (95%CI)	p-value
	n	%	n	%	n	%				
<b>Age classes (years)</b>										
[35-45]	30		22	77.33	8	26.67	2.04 (0.82-5.04)	0.119		
[25-35]	126		75	59.52	51	40.48	1.87 (0.77-4.52)	0.16		
[15-25]	94		54	57.45	40	42.55	1			
<b>Religion</b>										
Christian	184		102	55.4	82	44.6	1		1	
Muslim	66		49	74.2	17	25.8	2.31 (1.24-4.32)	0.0007	3.56a (2.76-4.59)	0.0001
<b>Level of Education</b>										
Secondary-Higher	139		75	54	64	46	1		1	
Up to Primary	111		76	68.5	35	31.5	1.85 (1.10-3.12)	0.0197	3.64b (2.74-4.82)	0.0001
<b>Distance from the health unit</b>										
≥5km	211		118	55.9	93	44.1	1		1	
<5km	39		33	84	6	16	4.33 (1.74-10.78)	0.0007	3.32c (2.23-4.95)	0.0001
<b>Ethnicity</b>										
Fulani	230		132	57.2	98	42.8	1		1	
Nso	20		19	95	1	5	4.33 (1.74-10.78)	0.0005	3.32d (2.23-4.95)	0.0001
<b>Monthly income</b>										
≥36000	42		16	38.1	26	61.9	1		1	
<36000	208		135	64.9	73	35.1	3.00 (1.51-5.96)	0.0012	2.56e (1.81-3.62)	0.0001
<b>Discuss MC with partner</b>										
Yes	158		74	46.8	84	53.2	1		1	
No	92		77	83.7	15	16.3	5.8 (3.09-11.0)	0.0001	3.07f (2.22-4.25)	<0.0001
<b>Decider for use of MC</b>										
Couple/self	138		72	51.8	66	48.2	1		1	
Partner	111		79	71.2	32	28.8	2.26 (1.33-3.84)	0.002	1.31g (1.9-1.45)	0.0001
<b>Counseling on MC</b>										
Yes	203		107	52.7	96	47.3	1		1	
No	47		42	93.6	5	6.4	7.54 (2.86-19.83)	<0.0001	2.71h (1.97-3.75)	0.0001

MC, modern contraceptives; I=reference category; C, crude odd ratio; A, adjusted odd ratio; a, adjusted on level of education, ethnicity, b, adjusted on religion, ethnicity, income, the decider for use, discussion on MC and distance from health facility l, adjusted on religion, level of education, ethnicity, c, adjusted on discussion of MC with partner; d, adjusted on discussion of MC with partner; e, adjusted on religion, level of education, ethnicity; f, adjusted on religion, level of education, ethnicity; g, adjusted on religion; distance to nearest health facility; to the ethnicity, h, adjuster on the religion, level of education and monthly income

## Discussion

The MC non-use rate was 60.4% (151/250) with the MC ever use rate was 39.6%. In the District of Ho, in Ghana, 89.8% had ever used MC.<sup>11</sup> This low ever use of MC can be due to the fact that, our study took place in a semi-urban area and that is facing socio-cultural barriers.<sup>12</sup>

We found the current use of MC use rate of 17.6% was. The low current MC use rate lower than the half of the ever use rate indicate that, even if mothers start contraception; there is a challenge for retaining them. A previous report in Wum district, North West, Cameroon, revealed the MC use rate of 13%<sup>8</sup>. This rate close to the findings from present study can be justify by the fact that they all

from the same region and both from rural area. Higher recourse to Mc was reported in some Africa countries; hence, the prevalence of MC was 22.7 in Nigeria, 33.2 in Ghana and 68.9% in Kenya.<sup>13</sup> In Ho health District, Ghana, and in Democratic Republic of Congo, authors reported MC prevalence among women in union ranged from 8.4% to 26.7%.<sup>14</sup> Higher MC use with was reported in the City capital of Cameroun (Health District of Biyem Assi in Yaoundé) with 58.9 of women currently under a MC use.<sup>9</sup> This could be partially explained by the urban status of the site of those studies where people would have high education level.

Low level of education (up to primary vs. at least secondary) was found in the present study (68.5% vs. 31.5 %; AOR=3.4; 95% CI: 2.74-4.82; p=0.0001). Improving women education and partner

involvement may increase the MC use by acting as proxy-factor for the knowledge on contraception as this may increase the opportunity of knowledge and providers location. Similarly in an Ethiopian study on postpartum contraception revealed that, educational status of mother increased by 4-fold the odds of postpartum modern contraceptive use.<sup>15</sup> Another study from the same country found that, the odds of using MC increased by 2.35-times among women with more than primary education.<sup>16</sup> In the same country, it was reported that, postpartum MC use was significantly associated with secondary levels (OR: 2.5) and tertiary (OR: 5.36) level of education.<sup>17</sup> This observation suggests that family planning must be considered only as a health issue, but as a development one.

Living at more than 5 Km from a health facility was associated with non-use of MC (AOR= 3.32; 95%CI: 2.23-4.95). In Uganda, perception of the distance from health facility as long was associated with low use of MC.<sup>18</sup> Long distance could constitute a geographical barrier and financial constrains for potential MC users. The long distance to the health facility, may act as barrier the contraceptive access, because, women will need money not only for contraceptive method, but also for transportation. Hence, in Ethiopia, authors revealed that, the percentage of rural married women who use modern contraceptives decreased as distance from the nearest health service increased and was for 2km (41.2%), 2-3.9 km (27.5%), 4-5.9 km (22.0%), and  $\geq 6$  km (22.6%).<sup>19</sup> Some experience like delivery of MC by community health workers could be implemented as have shown a promise in Uganda.<sup>20</sup> Those community health workers must be train to deliver quality counseling and family planning methods.

Lack of counseling was associated with non-use of MC (AOR: 2.71; 95%CI: 1.97-3.75). The quality of family planning counseling may influence the use and the continuity of MC use over time. This counseling must focus on type of different types of methods, potential side effects with her chosen method, and what to do in case of side effects. Our findings are in line with Ethiopian report revealing 5-times MC use among HIV patients who benefited from care providers counseling in Ethiopia.<sup>21</sup> Awareness is of great importance as knowledge on the mechanisms of action and side effects could influence the acceptability of the MCs.<sup>7,22</sup> Consequently, it has been reported that compared to women who did not benefited from counseling, women with prior counseling before delivery of long-acting MC in postpartum was less likely to have unwanted pregnancies confirming the efficacy counseling.<sup>23</sup> This observation is supported by A Pakistan study revealing that, compared to baseline, awareness of contraceptives increased by 30 percentage points among population in the intervention area.<sup>24</sup> A Counseling as an intervention during antenatal care Guinea, revealed that at the ninth month postpartum, use of modern FP was significantly higher in the intervention group than in the control group (5.7% and 1.1%, respectively;  $p=0.024$ ).<sup>25</sup>

We also found that, lack of partner discussion on MCs was associated with non-use (OR: 3.07; 95%CI: 2.22-4.25). This is in line with previous report in Cameroon and Ghana.<sup>7,26</sup> Similarly, the Ethiopian study revealed 7.95-times increased odds of MC use among women who discussed about contraceptives with partner.<sup>21</sup> Discussing about MC suppose the possibility for deciding together. Therefore the self-decision by the partner observed in the present study (71.2% vs. 28.8%; AOR: 1.3 (1.9-1.45);  $p=0.0001$ ), is also the consequence of this condition. In India, women who participated in household decision making had an increased odd of using MC (OR = 1.17  $p<0.005$ ).<sup>27</sup> The partner who participates to the decision in collaboration with the woman is more able to support her finally and psychologically in case of side effects.

Monthly income less than 36 000 CFA was associated to non-use of MCs (AOR: 2.56; 95%CI: 1.81-3.62). Similar findings were reported in Nigeria.<sup>28</sup> Similarly, a previous study revealed 5-fold increased risk of no use of MC among Ethiopian non-employed women.<sup>29</sup> This observation is in agreement with Indian observation; women who were working and who were paid in cash were more likely to use in last 12 months (OR = 1.37  $p<0.005$ ).<sup>27</sup> Need for financial support for better recourse to MC was reported in Pakistan, as Vouchers resulted in a net increase of 16% points in current CU and in 26% points in MC use.<sup>24</sup>

## Conclusion

Currently use of MC was 17.6% and never use rate of MC was 39.6%. Never use of MC was associated with low level of education, living far from the health facility, lack of counseling on MC, lack of couple discussion on MC, decision for MC use belonging to the partner, and low monthly income. Most explicative factors are modifiable. Program managers must use them for developing strategies if they are expecting to increase MC use. We suggest the sensitization of couples and community based delivery through capacity building and empowerment for improving the MC uptake.

**PMT:** Initiation of the study, supervision, analysis and editing.

**ED:** Drafting the protocol, data collection, data entry, analysis and editing

**TNN and EK:** Did the study design, wrote the protocol and implemented the research.

**JPNMN, EK, and JSSA:** Did the literature search, crosschecked the statistical analysis and made important inputs in the drafting of the manuscript.

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## Conflicts of interest

The authors declare that they have no conflicts of interest.

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