

Full Length Research Paper

‘Wanting..., but not able to’: Realities of unmet needs for family planning and associated factors among postpartum women in the North of Benin

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Solving the unmet need for family planning is a challenge for improving women’s health, especially women during the postpartum period. This study aims to determine the degree of women’s unmet needs during the postpartum period and associated factors in Parakou, Northern Benin. This is a cross-sectional community study conducted in 2018 with 453 postpartum women living in Parakou. They were selected using a two-stage random sampling technique. We used a logistic regression model to identify the factors associated with unmet needs. The unmet needs for family planning concerned 340 postpartum women (75.06%; 95% CI: 71.1 - 79.0). This prevalence decreased significantly depending on the spouse’s education level. Other associated factors included the absence of a history of contraceptive use (AOR = 4.1; 95% CI: 2.5 - 6.9), failure to resume sexual practices (AOR = 2.1; 95% CI: 1.3 - 3.4), and the need for husbands’ authorization before adopting a contraceptive method (AOR = 2.2; 95% CI: 1.3 - 3.6). In conclusion, 75% of women during the postpartum period in Parakou have an unmet need for family planning. Contextualized interventions to reverse this trend must be designed to reduce maternal, perinatal, and neonatal morbidity and mortality.

Key words: Unmet needs, family planning, postpartum, associated factors, Benin.

INTRODUCTION

Maternal mortality is still very high globally, especially in developing countries (Alkema et al., 2016). However, this mortality could be reduced by 20% if the unmet need for family planning is met (Saifuddin et al., 2012). Unmet need for family planning represents the percentage of

women of reproductive age who would like to delay having a child (Spacing) or stop having a child (Limiting) but who are not using any contraceptive method (Demographic and Health Surveys, 2012). Indeed, a women’s ability to space and limit her pregnancies has

direct consequences for her health and well-being (Pasha et al., 2015a). After a live birth, the recommended interval before the subsequent pregnancy is at least 24 months to reduce the risk of complications for both mother and child (Cleland et al., 2006). It has been documented that the occurrence of a new pregnancy less than 18 months after a birth puts the mother and her child at risk of maternal morbidity, low birth weight, intrauterine growth retardation, prematurity, and malnutrition (Conde-Agudelo et al., 2007; Cleland et al., 2012). Thus, the unmet need for family planning (FP) represents a fundamental concept and one of the most critical indicators of FP policy, programs, and research (Bradley et al., 2012).

Unfortunately, approximately 215,000,000 women worldwide want to delay or stop having a child but do not use any contraceptive method. In the literature, the problem of the unmet need for family planning affects approximately 53.2 to 82.0% of women in Central or West Africa, 26.1 to 75.1% of women in South or East Africa, 27.9 to 52.9% in North Africa or Asia, and 27.2 to 57.4% of women in Latin America or the Caribbean (Cleland et al., 2015). Several factors in the literature are associated with the unmet need for family planning in post-partum periods. Some women in amenorrhea underestimate the risk of pregnancy under the pretext that amenorrhea guarantees sufficient protection (Abera et al., 2015a). Some studies have also identified age, the number of children, pre and post-natal visits, level of wealth, and resumption of sexual activity.

In Benin, precisely in the Department of Borgou, 29.2% of women in the union have the unmet need for family (Hounkponou et al., 2019). This finding indicates a low level of contraceptive use in general, which may be lower among postpartum women, who are among those most in need of family planning services. This study was conducted to better understand the unmet needs for family planning among postpartum women. This will help to identify appropriate strategies to optimize the prevention of maternal mortality.

MATERIALS AND METHODS

Study design, study population, and sampling procedure

This was a community-based cross-sectional study that included participants from the survey of postpartum contraceptive use in Parakou (Hounkponou et al., 2019). The City of Parakou is located in the Department of Borgou (North of the Republic of Benin), between 9° 21' North latitude and 2°36' East longitude. This city is a district with a special status and covers an area of 441 km². It is divided into three sub-districts (Figure 1) and consists of 58 villages and districts. The study included 453 women living in Parakou who had given birth in the 12 months preceding the survey. It excluded

participants who had undergone tubal ligation or hysterectomy and those who did not consent to participate.

Sampling was conducted in two stages. Half (29) were selected by simple random sampling for the first stage. We selected households with eligible women for the survey in the second stage. In the center of each selected district, we used the direction indicated by the throwing of a ballpoint pen. We then proceeded to number all the households in the chosen direction and choose one household to survey in that area by simple random draw. In this household, the selection of women began, and the following was done according to the nearest door technique until we obtained the number of eligible women needed per sub-district. A maximum of two women per household were randomly selected. Data were collected via a pretested questionnaire during a door-to-door survey conducted from May 1 to 31, 2018, by teams of trained interviewers.

Variables

The dependent variable was an unmet need for family planning during extended post-partum period (Women not use modern contraceptives but want to space or limit = Yes; women utilize modern contraceptives and women who want to give birth soon = No). To identify factors associated with the unmet need for family planning in the postpartum period, we included seventeen independent variables at the respondents' level. These included:

- i) socio-demographic features such as age, level of education, occupation, religion, marital status, husband's education level, socioeconomic level,
- ii) factors related to the women's reproductive history such as gravidity, parity, menses resumption, contraceptive use history, resumption of sexual activities post-pregnancy, last intended pregnancy, counseling during pregnancy/in the delivery room/in the postpartum period, and
- iii) discuss contraceptive use with husband/partner and the need for the husband's permission before adopting a contraceptive method.

The socio-economic level of the respondents' household was determined using the Demographic and Health Surveys' poverty index, which is a composite index of socio-economic status that assigns a weight or scores. Scores are obtained through a principal component analysis, as Filmer and Pritchett described, which considers the number of properties the respondents owns and the households' characteristics (Filmer and Pritchett 2001). Each respondent is ranked according to the household asset score and is assigned to poverty tertiles as follows: poorest (Poor), average (Average), and wealthiest (Rich).

Data processing and statistical analysis

Data were processed with Epi Data 3.1 and Stata 15. Traditional descriptive statistics of mean or median as appropriate were used for quantitative variables, while categorical variables were expressed as percentages. Factors associated with the unmet need for family planning were identified by simple (univariate analysis) and multiple (step-down modeling strategy) logistic regression methods. The crude and adjusted odds ratios (ORs) and corresponding 95% confidence intervals (95% CI) were identified.

The significance level was 5%. The fit of the final model was

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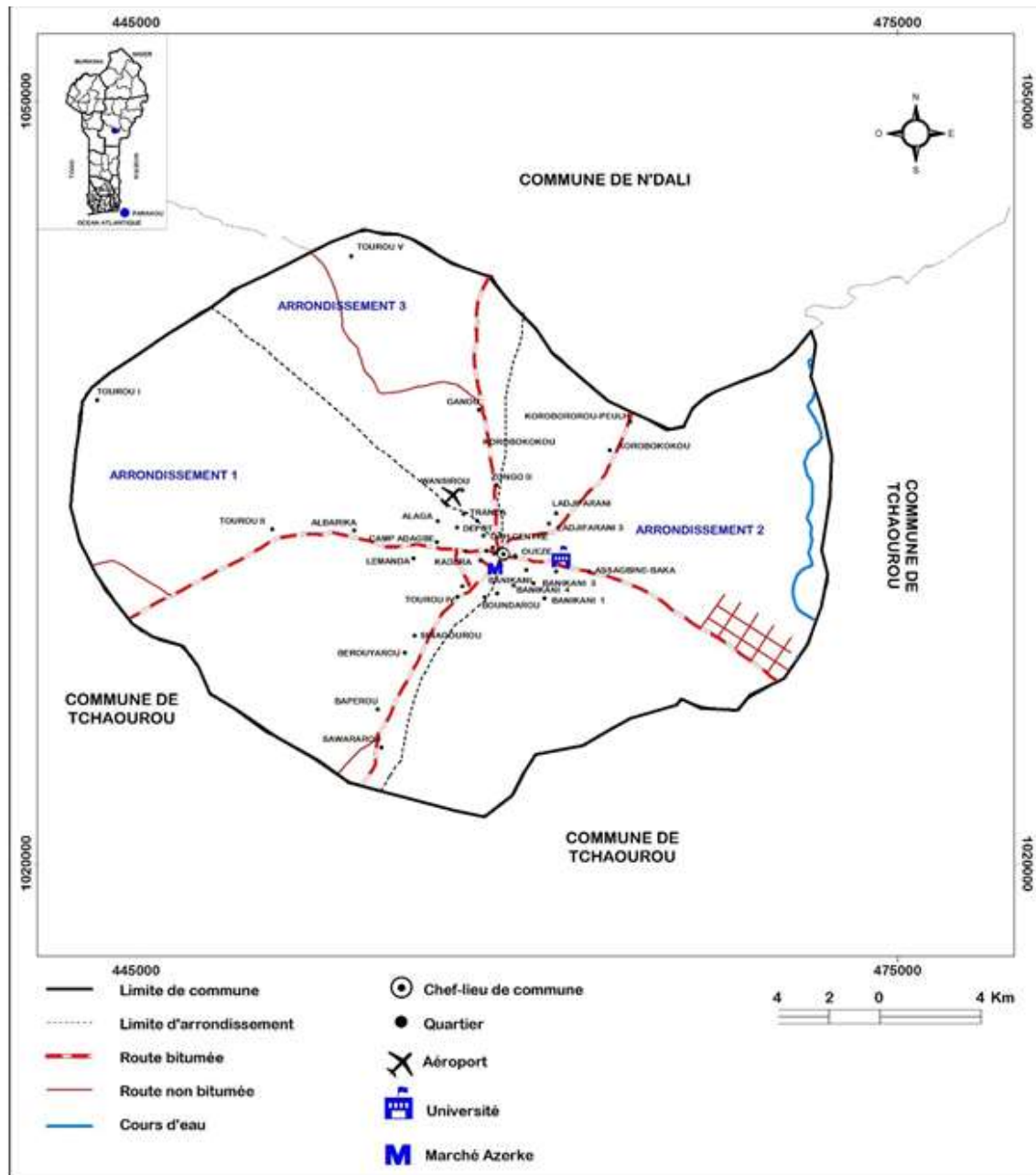


Figure 1. Administrative map of Parakou City.

checked using the Hosmer Lemeshow test.

Ethical statement

This study was conducted following the Declaration of Helsinki. Before the data collection, ethical authorization (N° 0123/CLERB-UP/P/SP/R/SA) was obtained from the Faculty of Medicine (University of Parakou) ethical clearance committee, as well as from Parakou's city health authorities. When recruiting participants, researchers informed subjects of the purpose of the study, the fact that it was anonymous, and of their right to agree or refuse to participate. Participants were also told that they could withdraw

from the study at any time if they wished to do so. The interviews took place in private to ensure confidentiality. Before data collection, the research team obtained written consent to participate from all the respondents (Hounkponou et al., 2019).

RESULTS

Characteristics of participants

The mean age of the 453 women was 27.1 ± 6 years (Min: 15 years; Max: 45 years). Women under 25 years of age

were represented at 36.2% (Women aged 15 to 19 represented 8.2% of the respondents). The women were mainly traders (36.9%), married (74.6%), muslim (68.4%), and educated (39.3%). 38% of spouses had a secondary level of education. Additional respondent characteristics are summarized in Table 1.

Prevalence of unmet needs for family planning

Among the 453 respondents, 277 had a parental plan at least two years after the last one, but were not using any contraceptive method. Similarly, 72 women reported no longer having a parental plan but were not using any contraceptive method at the survey time (Figure 2). Thus, the overall prevalence of unmet needs for family planning in FP was 75.06% (95%CI: 71.05 - 79.05), of which 13.91% (95%CI: 10.71 - 17.11%) concerned birth limitation and 61.15% (95%CI: 56.64 - 65.65) birth spacing.

Reasons for not using contraceptive methods

The main reasons given by the respondents for not using contraceptive methods were fear of side effects ($n=121$; 30.7%), ignorance of contraception ($n=63$; 16%), and lack of interest in contraceptive methods (15.5%). The different reasons given are presented in Table 2.

Factors associated with unmet needs for family planning

The multivariate analysis (Table 3) highlights spousal education, history of contraceptive use, resumption of sexual activity, and the need for spousal permission to use any contraceptive method as factors associated with the unmet need for family planning in the postpartum period. Indeed, all other things being equal, the risk of having an unmet need for contraception decreased significantly with the spouse's level of education. It was four times higher among women with no history of contraceptive use (AOR=4.1; 95%CI: 2.5 - 6.9) compared with those without, two times higher among women who had not yet resumed sexual activity (AOR=2.1; 95%CI: 1.3 - 3.4) and among those who necessarily needed their spouse's permission before adopting any contraceptive method (AOR=2.2; 95%CI: 1.3 - 3.6).

DISCUSSION

Prevalence of the unmet needs for family planning

In the study, 3 out of 4 women (75.06%) had unmet needs for family planning during the postpartum period.

The proportion observed is among the highest in the literature. This problem affects approximately 53.2 to 82.0% of women in Central or West Africa, 26.1 to 75.1% of women in South or East Africa, 27.9 to 52.9% in North Africa or Asia, and 27.2 to 57.4% of women in Latin America or the Caribbean (Cleland et al., 2015). Other studies have found that the extent of the unmet needs for family planning ranges from 16.3% in Egypt to 96% in Pakistan (Mehata et al., 2014; Pasha et al., 2015b; Sileo et al. 2015; Elweshahi et al., 2018). This high geographical variability of the unmet needs for family planning is noted in a meta-analysis conducted in low- and middle-income countries (Dev et al., 2019). The prevalence indicated in our study is higher at the combined prevalence of 48.5% and those noted by region, which is 59.4% in West Africa (highest), 58.4% in South/East Asia (58.4%), and 45.6% in East Africa (Dev et al., 2019). The regional differences in the magnitude of the unmet needs for family planning compared to our study show the need for specific strategies tailored to the realities of each area. In the context where home deliveries are standard and antenatal or postnatal visits are not yet sufficiently entrenched (Badirou et al., 2018; Hontebeyrie, 2018; Appiah et al., 2021), it may be necessary to prioritize community-based interventions, as these women may not benefit from interventions conducted in health facilities. In a quasi-experimental trial, women who received counseling before or during follow-up were 14% less likely to have the unmet needs for family planning in the postpartum period than women who did not receive counseling. In addition, women who received counseling before and after discharge from the health facility were 27% less likely to have the unmet needs for family planning than women who did not receive counseling from having the unmet needs for family planning (Puri et al., 2021). Pre- and post-discharge women's counseling is likely to impact subsequent contraceptive uptake positively.

However, the proportion of unmet needs for family planning can vary considerably depending on the postpartum period (Wilopo et al., 2017). Data from Demographic and Health Surveys conducted in 57 countries between 2005 and 2013 show that, depending on the postpartum period, 62% of women just after delivery, 43% of women after the first six months of amenorrhea, and 32% after six months have unmet needs for family planning (Rossier et al., 2015). Most women in sub-Saharan Africa breastfeed for a relatively long period. They may be reluctant to initiate a modern contraceptive method soon after birth, believing there is no pregnancy risk. This may increase the magnitude of unmet needs for family planning, as noted in our study.

Reasons for not using contraceptive methods

The main reasons for women's unmet needs for family

Table 1. Univariate logistic regression of factors associated with Unmet Need for Family Planning during Post-Partum in Parakou, Benin, 2018.

Variable	Total population		Unmet Need for Family Planning		
	Number	%	%	OR [95% CI]	p-value
Age (Years)					0.071
< 25	164	36.2	78.0	1	
25 – 29	132	29.1	66.7	0.6 [0.3 – 0.9]	
30 – 34	91	20.1	80.2	1,1 [0.6 – 2.2]	
≥ 35	66	14.6	77.3	0,9 [0.4 – 1.9]	
Educational level					< 0.001
No education	178	39.3	83,7	6.2 [2.4 – 15.6]	
Primary	106	23.4	74,5	3.5 [1.4 – 9.0]	
Secondary	147	32.4	69,4	2.7 [1.1 – 6.7]	
University	22	4.9	45,5	1	
Occupation					0.011
Student	21	4.6	66.7	1	
Employed	39	8.6	53.8	0.6 [0.2 – 1.7]	
Merchants	167	36.9	76.0	1.6 [0.6 – 4.2]	
Housewife	143	31.6	81.8	2.3 [0.8 – 6.1]	
Artisan	83	18.3	73.5	1.4 [0.5 – 3.9]	
Religion					0.004
Christian	143	31.6	66.4	0.5 [0.3 – 0.8]	
Muslim and Animist ^a	310	68.4	79.0	1	
Marital status					0.098
Single	19	4.2	89.5	1	
Concubinage	96	21.2	68.7	0.3 [0.1 – 1.2]	
Married	338	74.6	76.0	0.4 [0.1 – 1.6]	
Husband education level					< 0.001
No education	136	30.0	85,3	5.8 [2.7 – 12.3]	
Primary	101	22.3	81,2	4.3 [2.0 – 9.4]	
Secondary	172	38.0	69,8	2.3 [1.2 – 4.5]	
University	44	9.7	50,0	1	
Socio-economic status^b					0.181
Poor	151	33.3	80.1	1	
Average	150	33.1	71.3	0.6 [0.4 – 1.1]	
Rich	152	33.6	73.7	0.7 [0.4 – 1.2]	
Gravidity					0.577
1	106	23.4	71.7	1	
2 – 3	87	19.2	78.2	1.4 [0.7 – 2.7]	
≥ 4	260	57.4	75.4	1.2 [0.7 – 2.0]	
Parity					0.269
1	116	25.6	69.8	1	
2 – 3	96	21.2	79.2	1.6 [0.9 – 3.1]	
≥ 4	241	53.2	75.9	1.4 [0.8 – 2.2]	
Number of living children owned					0.257
1	124	27.4	70.2	1	
2	107	23.6	79.4	1.6 [0.9 – 3.0]	
≥ 3	222	49.0	75.7	1.3 [0.8 – 2.2]	
Menses resumption					0.011
No	282	62.3	79.1	1.7 [1.1 – 2.7]	
Yes	171	37.7	68.4	1	

Table 1. Contd.

History of contraceptive use					< 0.001
No	341	75.3	84.2	5.9 [3.7 – 9.5]	
Yes	112	24.7	47.3	1	
Sexual intercourse resumption					< 0.001
No	294	64.9	82.0	2.7 [1.8 – 4.3]	
Yes	159	35.1	62.3	1	
Was the last pregnancy planned?					0.922
No	33	7.3	75.8	1.0 [0.4 – 2.4]	
Yes	420	92.7	75.0	1	
Discussion about contraceptive use with a partner					0.015
No	225	49.7	80.0	1.7 [1.1 – 2.6]	
Yes	228	50.3	70.2	1	
Partner's permission needed^c					< 0.001
No	121	26.7	61.2	1	
Yes	332	73.3	80.2	2.5 [1.6 – 4.0]	
Counseling Received^d					0.006
No	189	41.7	81.5	1.8 [1.2 – 2.9]	
Yes	264	58.3	70.5	1	

^a Muslim (n=301); (Animist n=9) ^bSocio-economic status was categorized using tertiles, with the lowest being "Poor" and the highest being "Rich". OR, Odds Ratio; %, Percentage.

planning were fears of side effects, lack of knowledge about contraception, disinterest, and waiting for the child to wean. There are multiple reasons women who want to space or limit births do not use contraception in the literature. These reasons may be similar for all women of childbearing age and specific to postpartum women (Sedgh and Hussain, 2014; Wulifan et al., 2016). They include fear of side effects, misconceptions, cultural acceptability, low perceived risk of pregnancy, provider refusal to remove implants and lack of understanding of family planning use, and opposition from husbands for fear of their wife's infidelity (Idowu et al., 2015; Wulifan et al., 2016; Embafrash and Mekonnen, 2019). Providers must support postpartum women who wish to prevent or delay future pregnancies by ensuring that they receive sufficient information about available contraceptive methods to help them through this sensitive period to engage their interest.

Factors associated with unmet needs for family planning

Education level

The risk of having unmet needs for family planning decreased significantly with the spouse's level of education. Similar findings were made by other authors who found that women with uneducated spouses had a higher unmet need for family planning (Mengesha et al., 2015; Abraha et al., 2018b). The husbands' high level of

education has a favorable effect on their wives' adoption of contraceptive methods. More educated husbands would be more likely to discuss family planning with their wives and give the couple decision-making power. This points to the need to include spouses in interventions to promote family planning by increasing their knowledge about the importance of contraceptive methods. In addition, several studies have shown that regardless of spouses, women with little or no schooling are more likely to have an unmet need for family planning (Pasha et al., 2015b; Tegegn et al., 2017). In contrast to these authors, the present study did not report a significant association between women's education level and the unmet need for family planning. This finding is consistent with observations in the literature from Nigeria and Nepal (Mehata et al., 2014; Chinaeke et al., 2019). However, in the Nepal study, the authors noted that women with a secondary school education were at higher risk of having an unmet need for family planning for birth spacing than those with no education but were at lower risk for birth limitation (Mehata et al., 2014). This type of analysis could further identify the component of unmet family planning needs possibly influenced by women's education level in our study.

History of contraceptive use

The study found that the unmet need for family planning was four times higher among women with no history of contraceptive use than those without. A similar finding

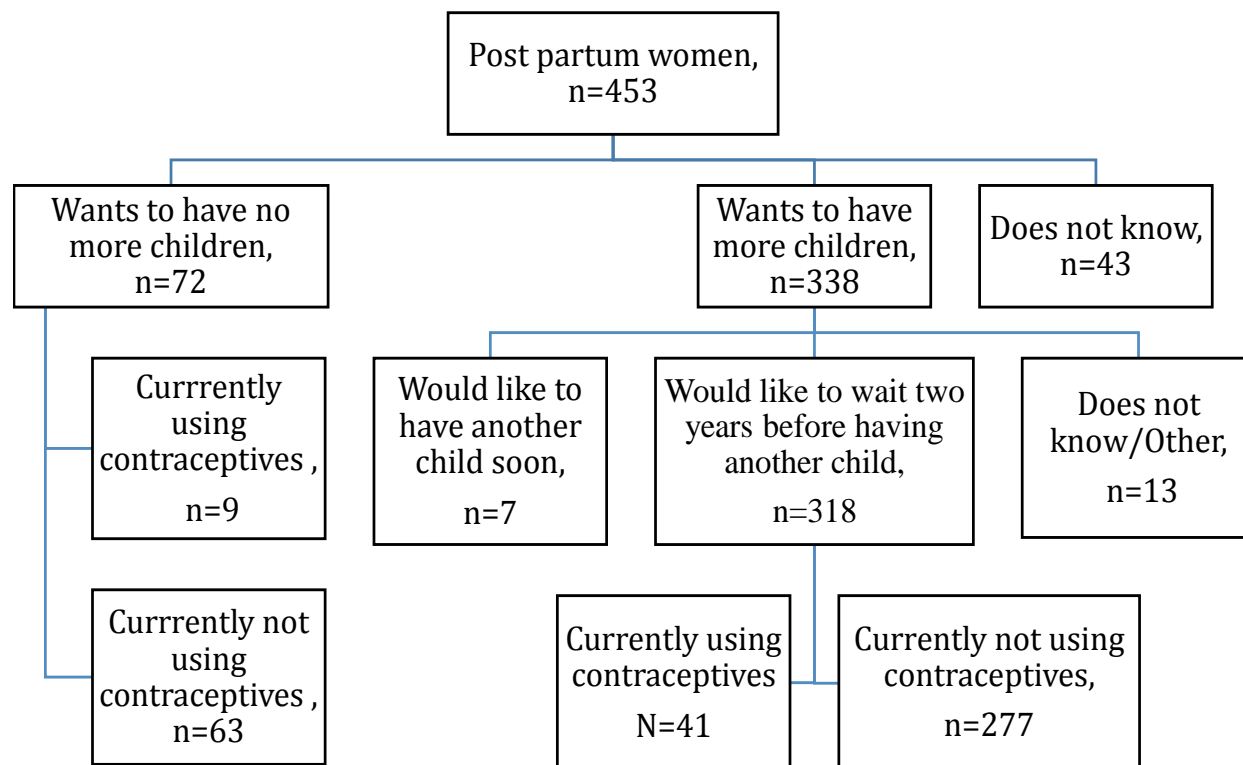


Figure 2. Unmet need for family planning in the post-partum period, Parakou City, north Benin, 2018.

Table 2. Reasons do not use contraceptives among women in the post-partum period, Parakou town, north Benin, 2018 (n = 340).

Variable	Number	%
Fear of side effects	104	30.9
Ignorance of contraception	54	16.2
Not interested	53	15.6
Waiting for the child to be weaned	50	14.7
Not ready yet	24	7.0
Husband refuses	24	7.0
Waits for return from childbirth	10	2.9
Lack of financial means	8	2.3
Not yet ready to resume sexual relations	5	1.5
Not for married women	3	0.9
Fear of not returning quickly to fertility	3	0.9

authors found that women with a history of contraceptive use were less likely to have unmet needs than others (Gebremedhin et al., 2018; Joshi et al., 2020). For other authors, the association between history of contraceptive use and unmet need was not significant (Tegegn et al., 2017). On univariate analysis, women who had never used a contraceptive method were 2.44 times more likely to have unmet needs (Tegegn et al., 2017). The results of the present study suggest that interventions to promote

the use of contraceptive methods before delivery could reduce the extent of unmet need for family planning in the postpartum period.

Resumption of sexual activity

Contraceptive counseling is ideally recommended before resuming sexual activity to avoid unwanted or closely

Table 3. Multivariate logistic regression of factors associated with Unmet Need for Family Planning during Post Partum Parakou, Benin, 2018.

Variable	AOR [95% CI]	P-value
Husband education level		
No education	4.0 [1.7 – 9.3]	0.001
Primary	3.3 [1.4 – 7.8]	0.005
Secondary	2.2 [1.1 – 4.8]	0.034
University	1	
Contraceptive method use history		
No	4,1 [2.5 – 6.9]	< 0.001
Yes	1	
Resumption of sexual relationships		
No	2.1 [1.3 – 3.4]	0.003
Yes	1	
Partner's permission needed*		
No	1	
Yes	2.2 [1.3 – 3.6]	0.002

*Partner's permission needed before adopting a contraceptive method; **Counseling during pregnancy/in the delivery room/in the postpartum period; Hosmer Lemeshow test: $p=0.665$. OR, Odds Ratio; AOR, Adjusted Odds Ratio.

spaced pregnancies and their obstetrical and neonatal consequences. We found that the unmet need for family planning was twice as high among women who had not yet resumed sexual activity. The same observation was made by other authors who found that in the absence of resumption of sexual activity, the risk of having an unmet need for family planning was multiplied by 3 to 4 (Berta et al., 2018; Abraha et al., 2018b). The resumption of sexual activity may be delayed because the partner often initiates it to satisfy himself or maintain the couple's harmony. However, it may also be delayed until after the return from childbirth (Kouakou et al., 2014). Abstention from sexual activity in the postpartum period may motivate these women not to be on a contraceptive method at the survey. In addition, ignorance of the possibility of pregnancy before the return from childbirth is a potential factor favoring the unmet need for family planning (Embafrash and Mekonnen, 2019). The multiple contraceptive methods available in the postpartum period should be presented to women to always find their ideal method before resuming sexual activity (Raccach-Tebeka and Plu-Bureau, 2015).

Partner's permission needed

The influence of women's partners on their unmet family planning needs is well documented (Abera et al., 2015b; Elweshahi et al., 2018; Abraha et al., 2018a). In this study, women who needed their spouse's permission before adopting any contraceptive method were twice as

likely to have an unmet need for family planning. Social norms generally assign women a subordinate status to men in terms of role division and decision making, especially in African settings, although there are some differences between ethnic groups (Locoh, 2007). In most sub-Saharan African countries, husbands generally make all critical decisions for the family, including those related to reproductive health (Gnoumou, 2014). The role of spouses in adopting modern contraceptives highlights the importance of changing the individualistic, woman-centered paradigm of contraceptive adoption to a couple-centered paradigm.

Limitations and perspectives

This study focuses on factors individual to women and their partners that may influence contraceptive choice. It does not explore factors related to the health care system, providers, and social representations that potentially affect the unmet need for family planning. Future research can address these issues. However, this study provides evidence on the extent of unmet need for family planning and factors that future interventions might address.

Conclusion

This study conducted on a population in Northern Benin shows that the unmet need for family planning in the

postpartum period in Parakou is high. It provides evidence that can be used as a benchmark for developing contextualized strategies to reduce the magnitude of unmet need for contraception and, in turn, contribute to reducing maternal mortality.

CONFLICT OF INTERESTS

The authors have not declared any conflict of interests.

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