

Modern Contraceptive Practice at the Association Ivoirienne Du Bien-Etre Familial (AIBEF) in Bouake: A Status Report

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How to cite this paper: Kouadio, K.N., Estelle, D.L., Yaya, S., Michele, M.-M.B., Georgie, M.C., Elysee, B.D.D., Camara, S., Yao, Y.C.A., Kouakou, K.P. and Yacouba, D. (2025) Modern Contraceptive Practice at the Association Ivoirienne Du Bien-Etre Familial (AIBEF) in Bouake: A Status Report. *Advances in Reproductive Sciences*, 13, 173-179.

<https://doi.org/10.4236/arsci.2025.133015>

Received: June 28, 2025

Accepted: August 23, 2025

Published: August 26, 2025

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Abstract

Objective: Contraceptive prevalence remains low in Côte d'Ivoire, despite the government's free maternal and child health program. However, maternal deaths from unsafe abortions resulting from unintended pregnancies persist. The aim of this study was to contribute to the reduction of maternal mortality. **Methods:** We conducted a descriptive cross-sectional study over a three-month period from January 1, 2023, to March 31, 2023, after obtaining authorization from the chief physician. We selected all the files of patients who had used a modern contraceptive method during the first half of 2023. We contacted patients who had discontinued use to determine the reasons. **Results:** The average age was 28.9 ± 7.2 years, and the dominant age group was 21 - 30 with 49.7%. The majority were paucigravida (35.8%), pauciparous (35%), Christian (62.9%), married and self-employed (43.7%). The predominant educational level was tertiary in 28.2% of cases. The injectable method was the most commonly used (46%). The main side effects observed were amenorrhea (19.5%) and bleeding (18.6%). The discontinuation rate was 48.7%, and the reasons for discontinuation were dominated by the desire for motherhood (29.4%), secondary amenorrhea (20%) and bleeding (18.9%). **Conclusion:** the injectable method was the most widely used in our series. Users were dominated by the 21 - 30 age group and were mainly Christian. The drop-out rate was high, and the main reason was a desire for motherhood.

Keywords

Bleeding, Modern Contraception, Secondary Amenorrhea, Reasons for Discontinuation

1. Introduction

Contraception is an indispensable pillar in reducing maternal mortality [1]; however, contraceptive prevalence remains low in Côte d'Ivoire. It was 14% in 2012 and 21% in 2017 [2]. Unmet need is estimated at 29.9% and 500,000 unwanted pregnancies due to lack of modern contraception [3]. Several obstacles explain these facts, including culture, religion and side effects [4]-[6]. A study carried out in N'djamena showed that 65.7% of women do not use contraception because of their age, their opinion on birth spacing, their opinion on birth limitation and discussion within the couple about contraception [7]. In Abidjan, the contraceptive acceptability rate in the immediate post-partum period was 72.9% in 2022 [1]. In the town of Bouaké, which is a semi-rural area, we encounter difficulties in the acceptability of contraception, but we have no concrete data, hence this study, the general aim of which was to contribute to the reduction of maternal mortality.

2. Methods

We conducted a descriptive cross-sectional study over a three-month period from January 1, 2023, to March 31, 2023, at the Association Ivoirienne du Bien Être Familial (AIBEF) in Bouaké, the most frequented contraceptive center. This study was carried out after obtaining permission from the head physician. Our study population was women who had used a modern contraceptive method of any type and whose 1st appointment date had already passed. The first appointment depended on the methods chosen. For injectable methods, it was two to three months depending on the method, which corresponded to the renewal date. For pills, it was every month, which corresponded to the renewal date. For intrauterine devices (IUD) and subcutaneous implants, the first appointment was set at three months. We selected all records of patients who had taken a modern contraceptive method in 2023 during the first quarter of the year. Discontinued patients were invited to discuss their reasons for discontinuation. The appointment was made by telephone, explaining to the patients that the doctor wanted to assess the effects of contraception on their health. Not included in the study were dropouts who did not respond to the call and those who consulted us for other reasons. We recorded 389 cases, 194 of which were drop-outs, but 9 of which did not respond to the summons. The variables studied were socio-demographic parameters, the different methods used, whether or not the 1st appointment was kept, the side-effects reported by the patients and the reasons for discontinuation.

3. Results

The 21 - 30 age group dominated with 49.7%, followed by the 31 - 40 and under-20 age groups with 31.8% and 11.8% respectively (**Table 1**). The mean age was 28.9 ± 7.2 years, with extremes of 13 and 52 years. Patients with a higher level of education were the most numerous, accounting for 28.2% of cases (**Table 2**). Self-employed patients were predominant with 43.7%, followed by pupils/students and housewives with 28.7 and 17.9% respectively. Married and single women accounted for 47.4% and 46.3% respectively. Christian women dominated with 62.9%, followed by Muslim women with 35%. Paucigravida, multigesta and primigravida were observed in 35.8%, 24.5% and 17.6% respectively, with a mean gestational age of 3.1 ± 2.1 . Pauciparous females dominated with 35%, followed by primiparous and nulliparous females with 24.2% and 19% respectively. The average parity was 2.2 ± 1.8 . The injectable method was the most widely used, accounting for 46% of cases (**Table 3**). Side effects were dominated by amenorrhea in 19.5% (**Table 4**). They had kept their first appointment in 53.7% of cases, and the drop-out rate was 48.7%. The three main reasons for discontinuation were maternal desire, amenorrhea and bleeding in 26.5%, 20% and 18.9% respectively (**Table 5**).

Table 1. Age distribution of patients.

Age group in year	Numbers	Percentage
≤20	45	11.85
[21 - 30]	189	49.73
[31 - 40]	121	31.85
[41 - 50]	24	06.31
>50	01	0.26
TOTAL	380	100

Table 2. Distribution of patients by level of education.

Education level	Numbers	Percentage
No schooling	96	25.26
Primary	72	18.95
Secondary	105	27.63
Superior	107	28.16
TOTAL	380	100

Table 3. Distribution of patients according to chosen method.

Selected method	Numbers	Percentage
Injectable	175	46.0
Subcutaneous implant	125	32.9
Pill	63	16.6
Intrauterine system	17	05.5
TOTAL	380	100

Table 4. Distribution of patients according to side effects.

Side effects	Numbers	Percentage
Amenorrhea	74	19.5
Bleeding	71	18.6
Weight gain	19	05.0
Pelvic pain	14	03.7
Weight loss	08	02.1
others	15	03.9
None	198	52.2

NB: there have been cases of combined side-effects, but we have counted the occurrence of an effect as a case in order to obtain the percentage of each side-effect reported.

Table 5. Distribution of patients by reason for discontinuation.

Motifs	Numbers	Percentage
Maternity desire	49	26.5
Amenorrhea	37	20.0
Bleeding	35	18.9
Method change	18	09.7
Weight gain	12	06.5
Family opposition	10	05.4
Weight loss	05	02.7
Pelvic pain	07	03.8
Divorce	02	01.1
Others	10	05.4
TOTAL	185	100

4. Discussion

In our series, the mean age was 28.9 ± 7.2 years, with extremes of 13 and 52 years. Patients in the 21 - 30 age bracket were the most numerous with 49.7%. This observation was superimposed on those of Aka K.E. *et al.* in Côte d'Ivoire in 2022, who reported a mean age of 28.2 ± 7 years [1] and Coulibaly M. *et al.* in Côte d'Ivoire in 2023, who reported 29 ± 6.4 years [8]. Other authors such as Badou A.O. in Benin in 2022 and Drame L. *et al.* in Guinea in 2023 reported different observations, with 32 and 17.3 ± 1.3 years respectively [5] [9]. Our lower average age could be explained by the fact that we are in a university town where female students are the most likely to seek contraception. We observed 55.63% of patients with at least secondary education. This observation is higher than that of Coulibaly M. *et al.* who observed 29.07% [8] and lower than those of Takada K. *et al.* in N'djamena in 2023 and Ouedraogo S. *et al.* in Burkina Faso in 2022 who noted respectively 75.8 and 61.1% [7] [10]. This difference can be justified by the differ-

ent educational systems taken into account, and even by the level of study considered as the patient having an acceptable level of education. Self-employed patients were the most numerous at 43.7%. Aka *et al.* had made the same observation, with almost 49% of birth attendants accepting contraception in the immediate postpartum period [1], as did Coulibaly M. *et al.*, who reported 50.9% of self-employed patients [8]. In contrast, Ouedraogo S. *et al.* reported a predominance of housewives at 49.1% [9] and Takada K. *et al.* observed 57.6% of non-working patients [7]. This difference could be explained by cultural beliefs that stipulate that a woman's place is in the home, and by the lack of schooling for young girls in certain countries and among certain peoples. We observed a dominance of married women with 47.4%. Affable I.A. in DR Congo in 2022 made the same observation, with a higher proportion of 60.9% of women having abandoned their contraceptive methods [6]. This could be explained by the fact that marriage or union remains a norm in Black Africa [11] and also by the fact that these married women who already have children use contraception to space births. In our series, Christian patients were the most numerous at 62.9%. Our observation overlaps with that of Ouedraogo S, who reported 55.8% Christian patients [10], but differs from that of Kimala T. *et al.*, who reported a predominance of non-religious/animists with 40.9% [7]. A study carried out in Burkina Faso in 2022 reported that all the clerics surveyed maintained that there was no religious contraindication to birth spacing, but as for the use of modern contraceptive methods, 8/21 (Muslim) religious guides felt that this was contrary to religion [12]. In a study published in 2022, Sophie C.-M. revealed that only 6% of Palestinian women thought that religion prohibited the use of contraception [13]. However, a study carried out in Benin in 2023 found no significant link between different religions and contraceptive use [14]. Paucigest and pauciparous women were the most numerous, at 35.8% and 35% respectively. This observation was similar to that of Ouedraogo S. *et al.*, with high proportions of 61.1% for paucigests and 62.2% for paucipares [10]. This observation could be explained by the fact that couples are limiting births due to the high cost of living, and these are relatively young patients seeking socio-economic integration. The most commonly used contraceptive method in our study was the injectable (46%), followed by the subcutaneous implant (32.9%). Our results differed from those of several authors, including Affable I.A., who reported a predominance of the intrauterine device (IUD) with 39.1% [6]. As for Coulibaly M. *et al.*, they reported that the majority used the pill with 63.49% of cases [8], as did Duranteau L. who observed a predominance of the pill among 15 - 17 and 18 - 19 year-olds with 46.7% and 52.4% of cases respectively [15]. This difference could be explained by personal preference on the part of the patient, the health worker providing counseling, the availability of methods and cultural barriers in each region. In our study, side effects were dominated by amenorrhea and bleeding, with 19.5% and 18.6% respectively. This observation is in line with the literature, which reports these as the main side-effects [5] [16]. The drop-out rate was very high during the study period, at 48.7%, which was much higher than

the rate of 9.6% reported by Foumsou L. *et al.* [16]. This difference could be explained by poor follow-up of patients receiving contraception (46.3% of patients did not attend their first appointment in our series), a lack of accurate information about side effects before starting the method, and a lack of effective management of side effects in our series. The three main reasons for discontinuation were maternal desire, amenorrhea and bleeding (26.5%, 20% and 18.9% respectively). This observation was identical to that of Foumsou L. *et al.*, who reported cycle disorder (5.04%) and desire for pregnancy (3%) as the main reasons for abandonment [16]. In contrast, Affable I.A. reported surrender to rumors (24.4%) followed by side effects (17.1%) as the main reasons for discontinuation [6]. These findings emphasize the critical need to strengthen user-centered counseling, improve continuity of care, and address misinformation through community-based interventions and culturally adapted health communication strategies.

5. Conclusion

The injectable method was the most widely used at the Bouaké family welfare association (AIBEF). Users were dominated by the 21 - 30 age group, who were mainly paucigest and pauciparous. Christianity was the dominant religion. Follow-up was irregular in almost half the cases, with a very high drop-out rate. The main reasons for discontinuation were side effects and the desire to have children. This high drop-out rate calls for greater awareness on the part of health workers of the importance of contraception and its side effects

Conflicts of Interest

The authors declare that they have no conflict of interest.

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