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Itinerary and determinants of loss to follow-up of pregnant women at the Yaoundé Gynaeco-Obstetrics and Paediatric Hospital

Itinéraire et déterminants des perdues de vue chez les femmes enceintes à l'Hôpital Gynéco-Obstétrique de Yaoundé

Nyada SR[1,2], Fouda Awona EN[1], Ebong Ebontane C[1,3], Tompeen I[1,5], Batoum Mboua V[1,4], Nsahlai C[1], Dohbit Sama J[1,5], Foumane P[1,6]

Original Article

1. Faculty of Medicine and Biomedical Sciences, The University of Yaoundé 1
2. Gynecological Endoscopic Surgery and Human Reproduction Teaching Hospital, Yaoundé
3. Yaoundé Central Hospital
4. University Teaching Hospital Yaoundé
5. Yaoundé Gynaeco-Obstetrics and Paediatric Hospital
6. Faculty of Medicine and Pharmaceutical Sciences, The University of Ebolowa

Corresponding author: Nyada Serge Robert, Faculty of Medicine and Biomedical Sciences, The University of Yaoundé 1, Email: sergenyadar@yahoo.fr, Tel: (+237)

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ABSTRACT

Introduction: Understanding "loss to follow-up" among pregnant women could help improve follow-up in clinical studies and thereby contribute to goals for prevention, treatment or research being achieved. The aim of our study was to trace the itinerary and assess the determinants of loss to follow-up amongst pregnant women at the Yaoundé Gynaeco-Obstetrics and Paediatric Hospital.

Methods and Materials: We conducted a cross-sectional analytical study from November 6, 2019 to June 2020. We included in our study women who had carried out antenatal care at the Yaoundé Gynaeco-Obstetrics and Paediatric Hospital. Variables of the study were socio-demographic, clinical and itinerary related of loss to follow-up of pregnant women.

Results: We enrolled 405 women; out of who 239 completed their follow-up and 166 women got lost to follow-up, giving a 41% proportion of loss to follow-up. After leaving the hospital, women attended private hospitals in 47.5% and the main reasons were distance to the hospital (22.3%) and financial barrier (18.2%). The choice of place of childbirth was the private facilities in 55.4%. The determinants of loss to follow-up included age group of [20- 30[years; residing at more than 15 km from the hospital; number of antenatal contacts <4; perception on the cost of pregnancy care as being very expensive.

Conclusion: The proportion of pregnant women lost to follow up was high. Young women between 20 – 30 years, having a past history of curettage, with poor economic resources and who recorded less than four antenatal contacts were prone to interrupt follow up.

RESUME

Introduction : Une meilleure compréhension du phénomène des « perdues de vue » pourrait permettre d'améliorer le suivi et par conséquent d'atteindre les objectifs de prévention et de traitement. Le but de cette étude était de déterminer l'itinéraire et les déterminants des perdues de vue parmi les femmes enceintes suivies à l'Hôpital Gynéco-Obstétrique et Pédiatrique de Yaoundé.

Méthodologie : Nous avons mené une étude transversale analytique sur une période de 8 mois entre novembre 2019 et juin 2020. Les variables étudiées étaient les données socio-démographiques, cliniques et l'itinéraire des perdues de vue.

Résultats : Nous avons retenu 405 dossiers de patientes, dont 166 appartenant au groupe I et 239 au groupe II ; d'où le taux de perdues de vue de 41%. Après avoir quitté l'hôpital, les gestantes consultaient dans les formations sanitaires privées dans 47,5% ; les principales raisons évoquées étant l'éloignement de l'hôpital (22,3%) et les difficultés financières (18,2%). Les gestantes choisissaient de donner naissance dans 55,4% dans des formations privées. Les déterminants associés aux perdues de vue sont : appartenir à la tranche d'âge [20-30[ans, habiter à plus de 15 km de l'hôpital, avoir réalisé moins de 4 consultations prénatales et avoir la perception que le coût du suivi prénatal est très onéreux.

Conclusion : Le taux de perdues de vue des gestantes était élevé. Les patientes d'âge jeune entre 20 et 30 ans, ayant un antécédent de curetage, un pouvoir financier faible et ayant réalisé moins de quatre contacts prénatals étaient plus susceptibles d'être perdues de vue.

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Introduction

Discontinuity of care may contribute to a considerable worsening of most diseases, leading to organ damage and an increase in health care expenditure [1,2]. Loss to follow-up is a major barrier to achieving the goals of prevention and control programs, too [3]. It is an indicator of treatment effectiveness, and therefore important to explore in the domain of pregnancy follow-up. As a result, women who are lost to follow-up may have less desired health outcome than the patients who remain in care, and therefore more likely to die [4-7].

There is limited information on loss to follow-up amongst pregnant women. In Cameroon, Dohbit et al reported a 44% loss to follow-up amongst adolescent pregnant women in Yaoundé [8]. Factors associated with this were working in the informal sector, originating from the North-West region of Cameroon, long waiting period during antenatal consultation, long distance to the hospital, medical fees considered as expensive, high cost of delivery, aggressive attitude of hospital staff, having a large family size and low socio-economic status [8]. We found no study done on the entire population of pregnant women on loss to follow-up and none to know the route they take and where they ended up once they leave health facilities. Thus, we carried out this study to raise local data on the itinerary and determinants of loss to follow-up of pregnant women booked at the Yaounde Gynaeco-Obstetrics and Paediatric Hospital (YGOPH) to ameliorate maternal services.

Materials and methods

We conducted a cross-sectional analytical study covering the year 2018 at the Yaoundé Gynaeco-Obstetrics and Paediatric Hospital (YGOPH). The target population was all pregnant women attending antenatal care irrespective of their place of delivery. Patients were divided into two groups. The group 1 included women who had carried out at least one antenatal care and did not deliver in the YGOPH. And the group 2 was made up of women who completed their follow-up and delivery at the YGOPH. The minimum sample size was estimated, based on the Schlesselman formula. The sampling method was consecutive. We searched the archives of the antenatal care unit and selected appropriate cases. Once the phone numbers were identified, women were called in order to obtain verbal informed consent. Women residing in Yaoundé were given an appointment during which the consent form was signed and the interview done. For those residing out of Yaoundé, the interview was done through phone call according to their availability. At the end of the interview, the questionnaire was filled. Variables of the study were socio-demographic, clinical and itinerary related of loss to follow-up of pregnant women. Statistical analysis was done using the software SPSS version 24. The Odds ratio with 95% confidence intervals was used to determine statistically significant risk factors. An error margin of 5% was set. Ethical approval was obtained from the Institutional Review Board of the Faculty of Medicine and Biomedical Sciences of the University of Yaoundé 1 and from the Centre Regional Ethics Committee for Human Health Research.

Results

Concerning the socio-demographic characteristics of our study population, as shown in Table I, the mean age of the study population was 29.9 ± 5.1 years (range 20-42 years). The [20 – 30[years age group was the most represented, and was significantly associated with loss to follow-up (P< 0.001).

Table I: Socio-demographic characteristics of study population

Variable	Total N=405 (%)	Group 1: Loss to follow-up N=166 (%)	Group 2: Complete follow-up N=239 (%)	OR (CI 95%)	P value
Mean age (years)	31.0 ± 5.3	29.9 ± 5.1	31.7 ± 5.2		
Age group (years)					
[20 – 30[	200 (49.4)	101 (60.8)	99 (41.4)	2.20 (1.5 – 3.3)	< 0.001
[30 – 45[	205 (50.6)	65 (39.2)	140 (58.6)		
Occupation					
Pupil	4 (1.0)	1 (0.6)	3 (1.3)	0.48 (0.5 – 4.6)	0.647
Student	76 (18.8)	36 (21.7)	40 (16.7)	1.38 (0.8 – 2.3)	0.244
Housewife	82 (20.2)	28 (16.9)	54 (22.6)	0.70 (0.4 – 1.2)	0.169
Jobless	14 (3.5)	8 (4.8)	6 (2.5)	1.97 (0.7 – 5.8)	0.270
Civil servant	94 (23.2)	37 (22.3)	57 (23.8)	0.92 (0.6 – 1.5)	0.811
Informal sector	70 (17.3)	34 (20.5)	36 (15.1)	1.45 (0.9 – 2.4)	0.182
Private sector	65 (16.0)	22 (13.3)	43 (18.0)	0.70 (0.4 – 1.2)	0.218
Marital status					
Married	192 (47.4)	68 (41.0)	124 (51.9)	0.64 (0.4 – 1.0)	0.034
Spinster	147 (36.3)	70 (42.2)	77 (32.2)	1.53 (1.0 – 2.3)	0.046
Cohabitation	61 (15.1)	25 (15.1)	36 (15.1)	1.0 (0.6 – 1.7)	1.000
Widow	4 (1.0)	2 (1.2)	2 (0.8)	1.45 (0.2 – 10.4)	1.000
Divorced	1 (0.2)	1 (0.6)	0 (0.0)	-	0.410
Residence (distance between house to hospital in kilometers)					
0 – 5km	263 (64.9)	101 (60.8)	162 (67.8)	0.74 (0.5 – 1.1)	0.169
5 – 10km	119 (29.4)	52 (31.3)	67 (28.0)	1.17 (0.8 – 1.8)	0.506
10 – 15km	14 (3.5)	6 (3.6)	8 (3.3)	1.08 (0.4 – 3.2)	1.000
>15km	9 (2.2)	7 (4.2)	2 (0.8)	5.21 (1.1 – 25.4)	0.036

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The majority of our participants in Group 1 (lost to follow up group) were civil servants (22.3%) followed by students (21.7%). Spinsters were the mostly represented marital status (42.2%), followed by married women (41.0%). Women resided mostly at 0-5km (60.8%) from the hospital. Residing more than 15 km from the hospital was associated with an increased risk to interrupt follow-up (P=0.036).

Regarding the obstetrical past history of our patients (Table II), the mean parity was 2.3 ± 1.5. A premature delivery was recorded in five patients (3%). Miscarriage was reported in 37 patients (63.8%). In addition, a past history of curettage was noticed for seven patients (4.2%). Cesarean section was the most common surgical procedure with 22 cases (13.3%) and cephalo-pelvic disproportion as the most frequent indication.

Table II: Obstetrical past history of participants

Variable	Total N=405 (%)	Group 1: Loss to follow-up N=166 (%)	Group 2: Complete follow-up N=239 (%)	OR (CI 95%)	P value
Gestity	3.0 ± 1.8	2.9 ± 1.8	3.1 ± 1.8		
Parity	2.4 ± 1.4	2.3 ± 1.5	2.5 ± 1.5		
Premature delivery					
Yes	23 (5.7)	5 (3)	18 (7.5)	0.387 (0.1-1)	0.040
No	382 (94.3)	161 (97)	221 (92.5)		
History of abortion					
Yes	136 (33.6)	58 (34.9)	78 (32.6)	1.13 (0.6 – 2.3)	0.436
No	269 (66.4)	108 (65.1)	161 (67.4)		
Types of abortion					
Spontaneous	84 (61.8)	37 (63.8)	47 (60.3)	1.13 (0.6 – 2.3)	0.436
Induced	52 (38.2)	21 (36.2)	31 (39.7)		
Surgical past history					
Caesarean section	80 (19.8)	22 (13.3)	58 (24.3)	0.48 (0.3 -0.8)	0.007
Curettage	9 (2.2)	7 (4.2)	2 (0.8)	5.22 (1.1 – 25.4)	0.028
Myomectomy	5 (1.2)	5 (3.0)	0 (0.0)	-	0.011
Other indications of laparotomy	4 (1.0)	0 (0.0)	4 (1.7)	-	0.120

As part of the follow up of the current pregnancy, shown on Table III, 111 out of 166 women (66.9%) started antenatal care at the YGOPH during the first trimester. Reasons related to the late start of antenatal care were: having started antenatal care in other health care facilities (49.2%), personal choice (18%) and financial barrier (16.4%). Concerning the total number of antenatal contacts, 89 out of 166 (54.3%) carried out less than four consultations during the pregnancy.

In the lost to follow up group, as shown on Table IV, the median age of pregnancy at the last antenatal care was 28 weeks, interquartile range [20 - 34 [. The majority of women stopped antenatal care during the third trimester (60.8%). Median number of antenatal consultations attended was 4, interquartile range [2 – 6.8 [. Once they left the YGOPH, women mostly visited private health facilities located at the periphery in 79 out 166 cases (47.5%). It is worthy to notice that 63 out of 166 (38%) did not report any further consultation at all. The main reasons advocated for leaving the YGOPH were respectively: distance (22.3%), financial barrier (18.1%), relocation of participants out of town (13.9%), fright and frustrations induced by the health personnel (11.4%).

Out of the 166 women who were lost to follow-up, 92 (55.4%) experienced childbirth in private health facilities, 39 (23.5%) in another public health facility and 25 (15.1%) delivered out of Yaoundé. The main reasons associated with the preference of choice of place of delivery other than YGOPH were distance (36.7%), financial barrier (17.5%), women seeking to be closer to their family (9%) and women not satisfied by hospital's service (8.4%).

Table III: Follow up of current pregnancy

Variable	Total N=405 (%)	Group 1: Loss to follow-up N=166 (%)	Group 2: Complete follow-up N=239 (%)	OR (CI 95%)	P value
Trimester of pregnancy at first antenatal contact at YGOPH					
First trimester	273 (67.4%)	111 (66.9%)	162 (67.8%)	0.96 (0.6 – 1.5)	0.914
Second trimester	104 (25.7%)	49 (29.5%)	55 (23.0%)	1.40 (0.9 – 2.2)	0.165
Third trimester	28 (6.9%)	6 (3.6%)	22 (9.2%)	0.37 (0.1 – 0.9)	0.030
Reasons for late start of antenatal care (second or third trimester)					
Started antenatal care elsewhere	63 (47.7%)	30 (49.2%)	33 (46.5%)	1.11 (0.6 – 2.2)	0.861
Chose to start late	24 (18.2%)	11 (18.0%)	13 (18.3%)	0.98 (0.4 – 2.4)	1.000
Financial barrier	19 (14.4%)	10 (16.4%)	9 (12.7%)	1.4 (0.5 – 3.6)	0.623
Didn't want to waste time in the hospital	11 (8.3%)	6 (9.8%)	5 (7.0%)	1.44 (0.4 – 5.0)	0.754
Ignorance	8 (6.1%)	2 (3.3%)	6 (8.5%)	0.37 (0.1 – 1.9)	0.286
Seniority	7 (5.3%)	2 (3.3%)	5 (7.0%)	0.45 (0.1 – 2.4)	0.450
Total number of antenatal consultations					
[0 – 4[	122 (31.0)	89 (54.3)	33 (13.4)	7.05 (4.4-11.4)	<0.001
[4-15[	271 (69.0)	75 (45.7)	196 (85.6)		

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Table IV: Loss to follow-up evolution

Variable	Value n=166	Percentage (%)
Pregnancy age at last antenatal care		
1st trimester	12	7.2%
2nd trimester	53	31.9%
3rd trimester	101	60.9
Next place to follow up		
Public health facility	24	14.5
Private health facility	79	47.5
No further place	63	38
Place of delivery		
Private health facility	92	55.4
Another public health facility	39	23.5
In another city town in Cameroon	25	15.1
On the way to hospital	7	4.2
At home	3	1.8
Reasons advocated for leaving YGOPH		
Distance to YGOPH	37	22.3
Financial barrier	30	18.1
Relocation	23	13.9
Fright and frustration from hospital personnel	19	11.4
Not satisfied	15	9
Inadequate privacy	14	8.4
Family reasons	13	7.8
Influx of patients	13	7.8
Religious reasons against blood transfusion	2	1.2
Reasons associated with choice of place of delivery		
Distance to YGOPH	61	36.7
Financial barrier	29	17.5
Be closer to the family	15	9.0
Not satisfied by YGOPH's service	14	8.4
Bypassed scheduled caesarean section	11	6.6
Doubt on performance of the hospital personnel	10	6.0
Rumours on excessive unexplained caesarean section	9	5.4
Preference of a particular gynaecologist of YGOPH	9	5.4
Wanted to be followed-up in private health facility	8	4.8

As shown on Table V concerning familial and socio-cultural variables associated with loss to follow-up, the perception of the cost of pregnancy by participants was predominantly affordable in 93 out of 166 (56%). There was a statistically significant association between perception of cost of pregnancy being very expensive and loss to follow-up (P=0.018). Regarding the cost of delivery, 49 out of 166 patients (29.5%) considered it as being affordable. This was a protective factor to loss to follow-up, with a statistical significance (P=0.000).

Table V: Familial and socio-cultural variables associated with loss to follow up

Variable	Total N=405 (%)	Group 1: Loss to follow-up N=166 (%)	Group 2: Complete follow-up N=239 (%)	OR (CI 95%)	P value
Perception on the cost of pregnancy care					
Cheap	14 (3.5)	6 (3.6)	8 (3.3)	1.08 (0.4-3.2)	0.548
Affordable	237 (58.5)	93 (56)	144 (60.3)	0.83 (0.6-1.2)	0.208
Expensive	108 (26.6)	41 (24.7)	67 (28)	0.86 (0.5-1.3)	0.290
Very expensive	46 (11.4)	26 (15.7)	20 (8.4)	2.03 (1.1-3.8)	0.018
Perception on the cost of delivery					
Cheap	6 (1.5)	2 (1.2)	4 (1.7)	0.72 (0.1-4.0)	0.524
Affordable	169 (41.7)	49 (29.5)	120 (50.2)	0.42 (0.3-0.6)	< 0.001
Expensive	136 (33.6)	49 (29.5)	87 (36.4)	0.73 (0.5-1.1)	0.091
Very expensive	44 (10.9)	17 (10.3)	27 (11.3)	0.90 (0.5-1.7)	0.434
No idea	50 (12.3)	49 (29.5)	1 (0.4)	99.68 (13.6-730.8)	< 0.001
Perception of reception by hospital staff					
Friendly	86 (21.2)	32 (19.3)	54 (22.6)	0.84 (0.5-1.4)	0.288
Normal	147 (36.3)	61 (36.7)	86 (36)	1.03 (0.7-1.6)	0.483
Aggressive	106 (26.2)	44 (26.5)	62 (26)	1.00 (0.6-1.6)	0.539
Bizarre	66 (16.3)	29 (17.5)	37 (15.4)	1.16 (0.7-2.0)	0.338
Level of education of head of the house					
No education	3 (0.7)	1 (0.6)	2 (0.8)	0.72 (0.1-8.0)	0.634
Primary	11 (2.7)	4 (2.4)	7 (2.9)	0.82 (0.2-2.8)	0.505
Secondary	164 (40.5)	72 (43.4)	92 (38.5)	1.22 (0.8-1.8)	0.189
Higher	227 (56.1)	89 (53.6)	138 (57.8)	0.85 (0.6-1.3)	0.235
Profession of head of the house					
Civil servant	139 (34.4)	52 (31.3)	87 (36.5)	0.80 (0.5-1.2)	0.171
Informal sector	124 (30.6)	53 (32)	71 (29.7)	1.11 (0.7-1.7)	0.356
Private sector	119 (29.4)	47 (28.3)	72 (30.1)	0.92 (0.6-1.4)	0.390
Student	10 (2.5)	8 (4.8)	2 (0.8)	6.00 (1.3-28.6)	0.014
Housewife	9 (2.2)	4 (2.4)	5 (2.1)	1.16 (0.3-4.4)	0.543
No occupation	4 (0.9)	2 (1.2)	2 (0.8)	1.45(0.2-10.4)	0.542

On the other hand, the same figure was associated with no idea on the cost of delivery because they had left the hospital earlier before their delivery, and was significantly associated with loss to follow-up

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(P=0.000). The perception of reception by hospital staff was predominantly normal (36.7%), followed by their aggressiveness (26.5%). The level of education and profession of the head of household were respectively higher institute (53.6%) and working in the informal sector (32%). In addition, having a student as profession of the head of the family was found in eight cases and was associated with loss to follow up.

After multivariate analysis, factors found to be associated with loss to follow up were the followings: age group between [20 – 30[years, number of antenatal contacts done less than four, having a past history of curettage and having a student as head of household.

Discussion

Sociodemographic characteristics associated with "loss to follow-up"

Few studies have addressed the problem of loss to follow-up amongst pregnant women. Our study showed that 41% of pregnant women were lost to follow-up. This result was close to that of Dohbit et al. who came-up with 44% in a similar study conducted in 2017, in Yaoundé -Cameroon [8]. However, the result is much higher than that of Marete et al, where the proportion of loss to follow-up was 1.7% in a prospective multi-centric study [9]. This difference can be explained by the fact that in latter survey, various techniques were employed to ensure retention of mothers in the registry. For example, some teams engaged traditional birth attendants to complete follow-up visit at home before and after delivery.

The mean age of women was 29.9 years (± 5.1). The [20 – 30[years age group was significantly associated with loss to follow-up (OR= 2.19, 95% CI= 1.5-3.3, P< 0.001) thus younger women were more likely to leave the hospital as compared to older women. This can be explained by the fact that older patients tend to have a more settled lifestyle, making it easier to incorporate hospital attendance for follow-up, whereas younger people had to move closer to the family for proper care after delivery and/or relocate to; seek employment, further studies or get married. Marete et al. had similar findings in 2015 with mothers of less than 20 years having a high risk of interrupting follow-up (RR= 1.2, 95% CI= 1.1, 1.3) [9].

Women's matrimonial status especially being single and married were significantly associated with loss to follow-up. The married women had a lesser tendency of leaving the hospital (OR 0.64, CI 95% 0.4-1.0, P=0.034) whereas spinsters tended to discontinue follow-up (OR 1.53, CI 95% 1.0-2.3, P=0.046). Married women, we believe have more financial, moral and physical support from their husbands, while single women are left to themselves and have to come up with all the necessary provisions, making them prone to become discourage. This is also seen in other studies on loss to follow-up where single women lack family support influencing them to discontinue follow-up [10, 11].

Residing at more than 15 km from the hospital influenced women to discontinue follow-up. This finding is in agreement with that of Tollegbe et al. in 2004, in a descriptive study to explain the discontinuity of obstetrical care in Africa. They found that women living at more than 15km from the health facility were 5 times more likely to interrupt follow-up [12]. This could be explained by the fact that women leaving in distant quarters encounter challenges with high transportation costs and road traffic jams, making it more difficult for them to meet-up with their consultations. So, even though these women came from out of town and desired to experience antenatal and delivery care at the YGOPH, unfortunately, they had to drop.

Itinerary of women who were "lost to follow-up"

A patient tracer is an effective way to determine the final status of lost patients. Most women in our series headed to private healthcare facilities (47.5%), 38% did not continue follow-up and 14.5% continued in public facilities. This difference in proportion could be explained by the fact that they evaluated women's perception and satisfaction of antenatal care in the private and public facilities. Whereas we tried to know the route taken by women once, they left our center.

The major complains women made about the YGOPH and the reasons attached to this preference for private health facilities in our study were: great distance from the women's residence making it difficult for them to arrive to the hospital on time to secure a good position (21.7%), financial barrier related to paraclinical investigations and delivery caution fees considered heavy (18.1%), relocation of women either family reasons or in search for settled life (13.9%). Others were fear of unjustified caesarean section and frustration from impolite attitude of nurses mostly when vital signs are taken (11.4%) and dissatisfaction of women on the absence of gynaecologists (10.2%), who are replaced by residents a different one at each consultation, inadequate confidentially and poor communication with care providers. This contrast those of Isatou et al. in Gambia in 2012 where satisfaction rate with antenatal services in private facilities was higher (97.9%) [13]. In a study on exploring the reasons for loss to follow-up in pregnancy of unknown location, Flynn et al found that barriers to follow-up were the long duration of management, general inconvenience and poor communication with their health care team [14]

A large proportion of women sought to deliver in private facilities (55.4%) followed by public health facilities (23.5%). This growing preference as identified in

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our study for private clinic was observed in a recent review conducted by Thecla et al., Tanzania in 2018 [15]. In contrast, in a study by Khumukcham et al. in India the preference for public hospitals was high [16].

The reasons for this choice of place of birth to the detriment of the YGOPH included: the distance to the hospital, as women opted to deliver in nearby private clinics. Financial challenges impacting their decisions; it was noticed that the cost of delivery relatively differ in different private hospitals where rich women visited high standing while those with low income delivered in low graded clinics [17]. Most women leaving alone as students sort to deliver closer to the family to benefit from proper family support.

The religious reasons for interrupting follow-up were women not going for blood transfusion in 1.2%. Christians belonging to the Jehovah Witness faith usually refuse blood transfusion even when it is indicated [18]. This induced the discontinuity of care for some pregnant women who were programmed for caesarean section and were told to reserve blood for eventual transfusion.

Clinical and reproductive variables associated with "loss to follow-up"

A past history of premature delivery was significantly associated with loss to follow-up (OR= 0.38, 95% CI = 0.1-1.0, P=0.040). Women with premature delivery were less likely to end follow-up probably due to the fear of having premature delivery again. Having fewer antenatal contacts (less than 4 contacts) was associated with loss to follow-up (OR= 7.05, 95% CI= 4.4-11.4, P<0.001). Tollegbe et al. outlined the proportions of discontinuity of obstetric care according to the number of antenatal consultations in different countries. He reported that in Cameroon, having less than four antenatal contacts was associated with 40.8% of loss to follow-up whereas having more than four antenatal contacts was associated with 23.3% of loss to follow-up [12]. Yet this cannot be applied to our study because some women started antenatal care elsewhere before booking for antenatal contacts at YGOPH and some others continued elsewhere after leaving YGOPH.

Women with a past history of caesarean section were less likely to stop antenatal contacts at the hospital (OR= 0.48; 95% CI= 0.3-0.8; P=0.007) this is because most of them considered the YGOPH as a one with a high level of care required for high-risk cases.

Socio-cultural and economic factors associated with "loss to follow-up"

We found an association between loss to follow-up and the perception of the cost of delivery as affordable (OR= 0.42; 95%CI=0.3-0.6; P < 0.001). This contrast with the findings of Dohbit et al. in a similar study in 2017 where women's perception of delivery fees was very expensive (OR= 16.23; 95% CI= 4.2-104.3; P < 0.001) [8]. This difference can be explained in that, in our series women who perceived delivery fees as affordable were less likely to discontinue follow-up while those having no idea had left earlier simply because of financial constraints. However, there was a similarity with the findings of Dohbit et al. on the perception of pregnancy cost to be very expensive and this was statistically significant with a high risk of discontinuity [8]. This similarity is mostly due to the bulky cost of laboratory investigations.

In Cameroon, a prospective cohort study conducted by Sidze et al. in 2015 on factors associated with loss to follow-up in HIV, found that paternal and maternal socio-professional activities are associated with loss to follow-up [19]. This is similar to our study where being a student and head of the household was a factor associated with loss to follow-up. This can be due to the fact that students have less financial resources and time to take care of the family needs.

Conclusion

The proportion of pregnant women lost to follow-up is very high. Close to half of these pregnant women after leaving YGOPH, revert to private health facility and the place of childbirth is a private hospital in 55.4%. Young women between 20 – 30 years, having a past history of curettage, with poor economic resources and who recorded less than four antenatal contacts are prone to interrupt follow up.

Conflict of interest: The authors declare that the research was conducted in the absence of any commercial or financial relationship that could be construed as a potential conflict of interest.

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