



IJSRM

INTERNATIONAL JOURNAL OF SCIENCE AND RESEARCH METHODOLOGY

An Official Publication of Human Journals



Human Journals

Research Article

May 2020 Vol.:15, Issue:3

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Study of the Factors Associated with the Under-Use of Post-Natal Consultations by Women Giving Birth at the Souissi Maternity Hospital in Rabat



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Submission: 23 April 2020

Accepted: 30 April 2020

Published: 30 May 2020



HUMAN JOURNALS

www.ijsrm.humanjournals.com

Keywords: Factors, associates, under-utilization, post-natal consultations, births

ABSTRACT

Objective of the study: The objective of this research was to study the factors associated with the under-utilization of post-natal consultations by women giving birth at the Souissi Maternity Hospital in Rabat. **Materials and Methods:** This is a prospective exploratory study carried out over a period of 9 months from March to November 2018, at the Souissi maternity hospital in Rabat. Including all births that had an uncomplicated pregnancy, the number of births recruited was 1009 cases. With a response rate of 93.36%, and using a mixed questionnaire, the number of births surveyed was 942 cases. **Results:** This study showed the existence of positive associations between underuse of post-natal consultations and second parity [OR = 1.140, 95% CI [1.082-1.264]], the progress of uncomplicated delivery [OR = 1.967, 95% CI [1.290-2.998]], the age of the birth [OR = 1.084, 95% CI [1.053-1.115]], the urban origin [OR = 8,796, 95% CI [4,392-17,617]], the influence of sensation of pain and discomfort [OR = 22,754, 95% CI [15,240-33,973]], the influence of the decision to consult during the postpartum [OR = 39,766, 95% CI [21,792-72,565]], and overall household income [OR = 3,672, 95% CI [3,046-4,426]]. **Conclusion:** The results of this study show that several factors are positively associated with the underutilization of postpartum care, demonstrating, therefore, the importance of taking them into consideration when caring for pregnant women, in order to participate in the promotion of post-natal consultations, with a view to reduce maternal and neonatal mortality in Morocco.

INTRODUCTION

For decades the issue of safe motherhood has been at the top of the international agenda. Indeed, in the face of alarming maternal mortality figures, these instances have declared stakeholders' orientations that have made it possible to reduce the maternal mortality rate in a number of countries. This led to the halving of the global maternal mortality rate between 1990 and 2015 [1].

However, while progress in reducing maternal mortality is very significant at the global level, developing countries still have very high rates, illustrating the gap between poor and rich countries in this regard. Indeed, according to World Health Organization reports, almost 99% of maternal deaths occur in developing countries [2]. Moreover, the maternal mortality rate in developing countries is 239 per 100,000 births, compared to 12 per 100,000 in developed countries [3].

In this table Morocco is no exception. Despite the Ministry of Health efforts for decades, Morocco has don't been able to achieve the goals set for the end of 2015, namely the reduction of maternal mortality to 50 deaths per 100,000 live births [4]. According to the results of the national survey on population and family health 2017, the maternal mortality rate is currently at 72.6 deaths per 100,000 live births [5]. This demonstrates that maternal mortality remains a public health problem in Morocco. The confidential survey on maternal deaths revealed that 73% of maternal deaths are preventable and that the most often preventable deaths are those related to direct causes with a percentage of 88% [6]. Hence the importance of improving the overall care of pregnant women and newborns, in this case strengthening the post-natal consultation program. Moreover, the same survey revealed that only 5.4% of the deceased women received adequate pre and post-natal consultations in terms of number and quality [6].

Furthermore, the results of this survey suggested that postpartum is a weak link in care, being repeatedly attributed to factors associated with maternal deaths. For this reason, the recommendations of this survey emphasized the importance of intensifying surveillance of women who have given birth [7]. Indeed, the 2017 National Population and Family Health Survey solemnly reported that in the five years prior to the survey, only 22% of births received post-natal care, hence the need to take appropriate action to provide timely take care of complications that may arise during the postpartum period [8]. In particular, the World

Health Organization has stated that the risk of death for women in childbirth is significantly high in the days following delivery [9].

In view of the social and economic consequences of maternal mortality [10], and the under-use of post-natal consultations in Morocco [8], this study has set out to study the factors associated with the under-use of post-natal consultations by women giving birth at the Maternity Souissi in Rabat.

MATERIALS AND METHODS

This exploratory prospective study was carried out over a period of 9 months from March to November 2018 at the Souissi maternity hospital in Rabat.

2.1 Criteria for inclusion

All women who had an uncomplicated pregnancy, who gave birth at the Souissi maternity hospital in Rabat, and who expressed their agreement to participate in this study, regardless of their age and origin, were included in this study.

2.2 Exclusion Criteria

Excluded from this study were giving birth with high-risk pregnancies and those who refused to participate in the survey.

2.3 Data Collection

The study was conducted through a mixed questionnaire on:

- Medical information: parity; term of pregnancy; mode of delivery; course of delivery;
- Socio-demographic data of the women who have just given birth, such as age, origin, social level, level of education of the woman and her husband;
- The socio-cultural data of the women who have given birth: the beliefs of the social environment with regard to post-natal consultations; the influence of the social environment on decision-making; the influence of the social environment on their feelings of pain and discomfort;

➤ Economic data on births: Overall household income; financial accessibility, medical coverage.

The study was completed by analyzing and extracting additional information from the medical record.

2.4 Ethical Considerations

The Ethics Committee of the Faculty of Medicine and Pharmacy of Rabat and the administration of the Souissi Maternity Hospital of Rabat have given their approval for the realization of this study. Informed consent was obtained from each women at the time of entry into the study. Participation in the study was free of charge, respecting confidentiality and anonymity.

2.5 Some definitions

2.5.1 The post-natal period

By post-natal period, this work considered the period from the end of labour to 42 days of postpartum.

2.5.2 The under-utilization of post-natal consultation

The under-use of postnatal consultation in this study means the categorical non-use of postnatal consultation.

2.5.3 The delivery process

Through the study of the medical file of each parturient, the progress of their delivery is analyzed by studying whether it is an eutocic or dystocic delivery.

2.5.4 The social level of women in childbirth

The social level of the women who have given birth is studied by questioning the respondents on the social stratum to which they belong, and this is done by offering them the choice between poor, between poor and average, average, between average and rich, and rich.

2.5.5 The level of study of the women who have given birth and her husband

In order to study the level of study of a woman who has given birth and her husband, this work has subdivided the levels of study into eight categories; Illiterate; M'Cit or Koranic school; Primary; Secondary; High school; Superior 1st cycle; Superior 2nd cycle; Superior 3rd cycle.

2.5.6 The social environment

By social environment, this study refers to family members and relatives of woman who has given birth.

2.5.7 Beliefs of the social environment

The beliefs of the social environment are studied in this work, by verifying whether the way in which the social environment considers the importance of post-natal consultations influences the use of post-natal consultations by women in childbirth.

2.5.8 The influence of the social environment

This work has studied how the social environment influences the women decision to have recourse to postnatal consultations and their sensation of pain and discomfort.

2.5.9 Household

According to the Moroccan High Commission for Planning definition, a household is a group of individuals living in the same dwelling and having common expenses [11]. This study used this definition when conducting the survey.

2.5.10 Household income

Adopting the monoculture approach validated by the High Commission for Planning, household income is analyzed in this study according to six categories. The category from 0 to 499DH, the category from 500DH to 1999DH, the category from 2000DH to 2999DH, the category from 3000DH to 4999DH, the category from 5000DH to 9999DH and the category from 10000DH to 19999DH. To calculate the household income, we took into consideration all the incomes of the active members of this household.

2.5.11 Financial accessibility

Financial accessibility is analysed in this study by checking whether women in labour have the financial means to attend the four post-natal consultations.

2.5.12 Medical coverage

Medical coverage is classified into four types. The National Social Security Fund (CNSS), the National Fund of Social Welfare Organizations (CNOPS), the Medical Assistance Scheme for the Economically deprived (RAMED) and a private insurance company.

2.6 Statistical analysis

The recorded data were subjected to computerized analysis using SPSS V 20 software. Quantitative variables were expressed as means and standard deviations, and qualitative variables as percentages. The comparisons used were the Student t-test for quantitative variables and the Pearson Chi2 test for qualitative variables. To identify factors associated with the underutilization of postpartum visits, comparisons between two groups (unfollowed case and controls who attended during the postpartum period) were made using binary logistic regression. The first level of significance was 5% and there was a 95% confidence interval.

RESULTS

3.1 Study Flow Chart

According to **figure 1**, between March and November 2018, the Souissi maternity hospital in Rabat performed 13041 deliveries. Among these parturient, based on the inclusion and exclusion criteria, 1009 cases were recruited in the study; i.e. 7.73%. Among these parturient there were 29 lost to follow-up cases (2.87%), and 38 women refused to continue the study (3.77%). As a result, the number investigated was 942 cases, divided into two groups. Group of the unfollowed case during the postpartum (459 cases) and control group of case who consulted during this period (483 cases).

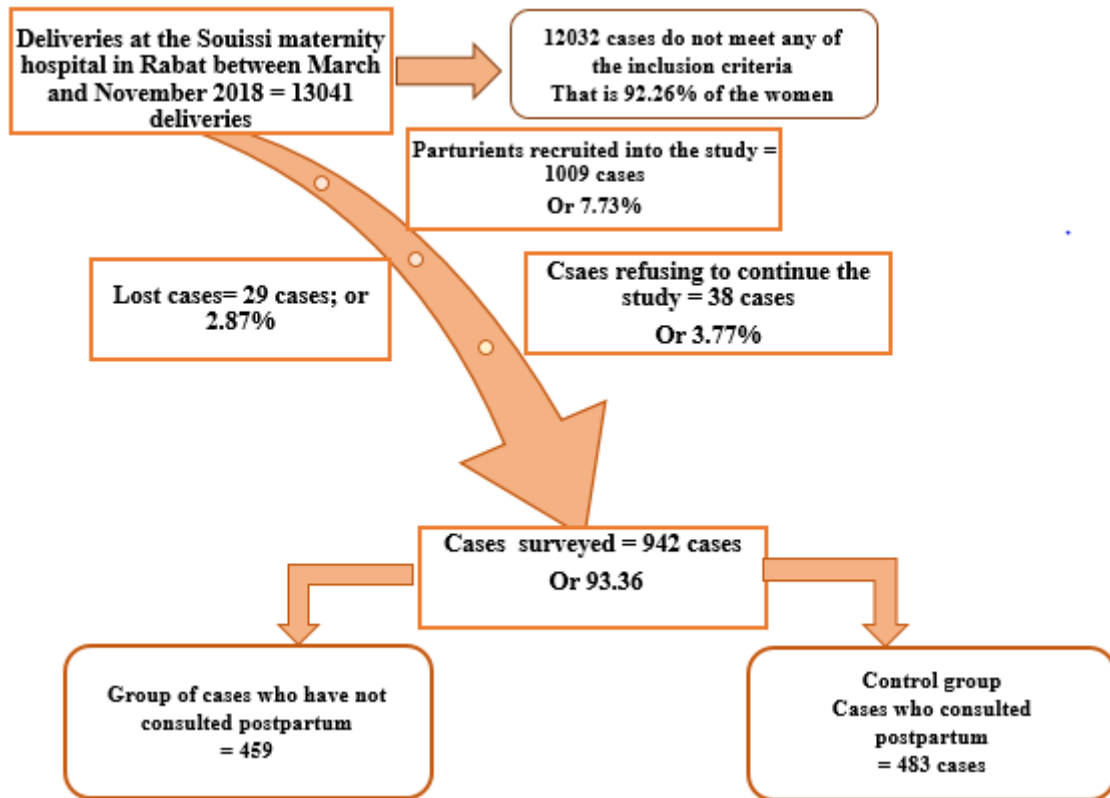


Figure No. 1: Summary of the flow of case participating in the study

3.2 Medical Information of the parturient Included in this Study

The women who have given birth that did not consult were second pares in 73.2%. They had a full-term birth in 54.7%, and over-term births in 38.8%. They had a vaginal delivery in 100% of cases. Their deliveries were without complications in 85.6% of cases. For cases with dystocic deliveries, they had bone dystocia in 74.24% and delivery hemorrhage in 24.24%. The average number of days of hospitalization for this cohort was 1.87 ± 0.38 , with 2 days of hospitalization in 83.7%. These births had eutrophic infants in 87.8%, and male infants in 51.2%. Furthermore, among the control group, the births were primiparous in 79.3%. They had a full-term pregnancy in 54.9% and were over-term in 41.4%. They had a vaginal delivery in 82.2%. They had a eutocic delivery in 92.1%. In cases with a dystocic delivery, they had bone dystocia in 50%, and long labor in 42.11%. The average number of days of hospitalization for this group was 1.87 ± 0.34 , with 86.7% of them being hospitalized for 2 days. The second cohort had a eutrophic baby in 85.3% of births, and a male baby in 51.1%. (Table 1)

Table No. 1: Medical Information of parturient Included in this Study

Variables	Unfollowed cases N= 459		Control group N= 483	
	Effective	Percentage (%)	Effective	Percentage (%)
Parity				
Primipare	84	18,3	383	79,3
2nd P	336	73,2	78	16,1
3rd P	28	6,1	15	3,1
≥4 P	11	2,3	07	1,4
Pregnancy Term				
Premature delivery	30	6,5	18	3,7
Term delivery	251	54,7	265	54,9
Term overrun	178	38,8	200	41,4
Birth Process				
Uncomplicated	393	85,6	445	92,1
With complication	66	14,4	38	7,9
Recorded Complications				
Bone dystocia	49	74,24	19	50
Hemorrhage of deliverance	16	24,24	03	7,89
long delivery	01	1,52	16	42,11
Delivery mode				
vaginal delivery	459	100	397	82,2
Cesarean	00	00	86	17,8
Number of hospital days (mean± SD)				
	1,87± 0,38		1,87± 0,34	
1 day	67	14,6	64	13,3
2 days	384	83,7	419	86,7
3 days	08	1,7	00	00
Weight of newborns				
Hypotrophic	37	8,1	64	13,3
Eutrophic	403	87,8	412	85,3
hypertrophic	19	4,1	07	1,4
Sex of newborns				
Female	224	48,8	236	48,9
Male	235	51,2	247	51,1

3.3 Socio-demographic characteristics of parturient

The average age of unfollowed group was 24.04 ± 4.66 , with 69.72% belonging to the age group [20, 30 years [. The origin of these women was urban in 46.2% and rural in 41.6%. 48.4% of them declared themselves to belong to a social stratum between the poor and the middle class, and 43.6% considered themselves poor. The level of their study was primary school in 40.7% and college in 36.4% of cases. The level their husbands' study was college in 29.4% and primary school in 22.9%. Furthermore, the average age of the control group

was 25.78± 4.67, with 75.98% being between [20, 30 years old [. The origin of the second cohort was urban in 68.9% and rural in 29%. Their social level was between poor and average in 44.3% and average in 33.1%. The level of their study was high school in 33.5%, college in 28.2%, and higher in 18.4%. The level of their husbands' study was higher in 28.2% and high school in 28%. (Table 2)

Table No. 2: Socio-demographic characteristics of women giving birth

Variables	Unfollowed case N= 459		Control group N= 483	
	Effective	Percentage (%)	Effective	Percentage (%)
Age range				
(mean± SD)	24,04± 4,66		25,78± 4,67	
< 20 years old	73	15,9	27	5,59
[20 , 30ans years old[320	69,72	81	16,77
[30, 40 years old]	64	13,94	367	75,98
>40 years old	02	0,46	08	1,66
Provenance				
Urban	212	46,2	333	68,9
Rural	191	41,6	140	29,0
Suburban	56	12,2	10	2,1
Social stratum				
Poor	200	43,6	109	22,6
Between poor and average	222	48,4	214	44,3
Average	37	8,1	160	33,1
Between average and rich	00	00	00	00
Rich	00	00	00	00
Level of education of the woman giving birth				
Illiterate	21	4,6	01	0,2
M'Cid or Koranic school	00	00	00	00
Primary	187	40,7	83	17,2
College	167	36,4	136	28,2
High school	66	14,4	162	33,5
Superior 1st and 2nd cycles	16	3,5	89	18,4
Superior 3rd cycles	02	0,4	12	2,5
Husband's level of education				
Illiterate	50	10,9	10	2,1
M'Cid or Koranic school	76	16,6	26	5,4
Primary	105	22,9	53	11,0
College	135	29,4	78	16,1
High school	67	14,6	135	28,0
Superior 1st and 2nd cycles	15	3,3	136	28,2
Superior 3rd cycles	11	2,4	45	9,3

3.4 Socio-cultural characteristic of parturient

Among those who did not receive follow-up care, 87.15% stated that their social environment does not believe in the importance of postpartum care. 62.53% of women who gave birth reported the influence of their feeling of pain and discomfort, and 50.33% reported the influence of their decision to consult during the postpartum. Moreover, in the control group 95.24% of the respondents reported that members of their social environment encouraged them to consult during the postpartum and that they believe in the importance of these consultations. 93.17% said that their social environment had no influence on their feelings of pain and discomfort, and 97.52% said that their decision to consult during the postpartum was not influenced. (Table 3)

Table No. 3: Socio-cultural characteristics of women who have given birth

Variables	Unfollowed case N= 459		Control group N= 483	
	Effective	Percentage (%)	Variables	Percentage (%)
Belief of the social environment in the importance of post-natal consultations				
No	400	87,15	23	4,76
Yes	16	3,48	460	95,24
I don't know	43	9,37	00	00
The influence of social environment on the sensation of pain and discomfort				
No	172	43,47	450	93,17
Yes	287	62,53	33	6,83
The influence of social environment on the decision to consult during the postnatal period				
No	228	49,67	471	97,52
Yes	231	50,33	12	2,48

3.5 The economic characteristics of women in childbirth

The household average income of unfollowed mothers is 2302.09± 1252.3, with 44.2% having an income between [500DH, 1999DH], and 33.6% having an income between [2000DH, 2999DH]. 71.68% of these births reported not spending during the perinatal

period. Of those who did spend, 71.54% considered their expenditures to be acceptable. 71% said they have medical coverage, which is RAMED in 78.22%. Otherwise, the average income of women in the control group was 5643.89± 1115.97, with [5000DH, 9999DH] in 76.2%. These groups had expenses during the perinatal period in 97.31%. They considered these expenses as acceptable in 89.03%, they had medical coverage in 91.49%, of which 81.75% had CNSS. (Table 4)

Table No. 4: Economic characteristics of women who have giving birth

Variables	Unfollowed case N= 459		Control group N= 483	
	Effective	Percentage (%)	Variables	Percentage (%)
Total household income of the women who have given birth (mean± SD)	2302 ,09± 1252,3		5643,89± 1115,97	
Total household income of the women who have given birth				
[0Dh, 499DH]	40	8,71	03	0,6
[500DH, 1999DH]	203	44,2	00	00
[2000DH, 2999DH]	154	33,6	00	00
[3000DH, 4999DH]	47	10,2	57	11,8
[5000DH, 9999DH]	15	3,27	368	76,2
[10000DH,19999DH]	00	00	00	00
Perinatal care expenditures in the perinatal period				
Yes	130	28,32	470	97,31
No	329	71,68	13	2,69
Appreciation of care expenses during the perinatal period				
Too high	24	18,46	02	0,43
Average acceptable	13	10	38	08,08
Acceptable	93	71,54	430	91,49
Moderates	00	00	00	00
Availability of medical coverage				
Yes	326	71,0	422	87,4
No	133	29,0	61	12,6
Type of medical coverage				
RAMED	255	78,22	70	16,59
CNSS	41	12,58	345	81,75
CNOPS	27	8,28	07	1,66
Private insurance company	03	0,92	00	00

3.6 The correlation between the variables included in the study and the under-utilization of post-natal consultations by the women who have given birth

Several variables are correlated with the under-use of post-natal consultations by women who have given birth at the Souissi maternity hospital in Rabat. In this case, the parity of the birth ($P=0.01$), the progress of her delivery ($P=0.001$), her age ($P=<0.001$), her provenance ($P=<0.001$), her social stratum ($P=<0.001$), her study level ($P=<0.001$), her husband's study level ($P=<0.001$), her the social environment's belief in the importance of postnatal consultations ($P=<0.001$), the influence of her social environment on her sensation of pain and discomfort ($P=<0.001$), the influence of her social environment on her decision to consult during the postpartum ($P=<0.001$), overall household income ($P=<0.001$), perinatal care expenditures ($P=<0.001$), availability of medical coverage ($P=<0.001$), and type of medical coverage ($P=<0.001$). (Table 5)

Table No. 5: The correlation between the variables included in the study and the under-utilization of postnatal consultations by the women who have given birth

Variables	P
Medical variables	
Parity	0,01
PregnancyTerm	0,207
Birth Process	0,001
Delivery mode	0,086
Socio-demographic variables	
Age range	<0,001
Provenance	<0,001
Social stratum	<0,001
Level of education of the woman giving birth	<0,001
Husband's level of education	<0,001
Socio-cultural variables	
Belief of the social environment in the importance of post-natal consultations	<0,001
The influence of social environment on the sensation of pain and discomfort	<0,001
The influence of social environment on the decision to consult during the postnatal period	<0,001
Economic variables	
Total household income of the women who have given birth	<0,001
Perinatal care expenditures in the perinatal period	<0,001
Appreciation of care expenses during the perinatal period	0,621

Availability of medical coverage	<0,001
Type of medical coverage	<0,001

3.7 Factors associated with the under-utilization of post-natal consultations by the women who have given birth

Table 6 shows that the second parity [OR = 1.140, 95% CI [1.082-1.264]], the uncomplicated delivery [OR = 1.967, 95% CI [1.290-2.998]], the age of women who have given birth [OR = 1.084, 95% CI [1.053-1.115]], the urban origin [OR = 8.796, 95% CI [4.392-17.617]], the influence of sensation of pain and discomfort [OR = 22,754, 95% CI [15,240-33,973]], the influence of the decision to consult during the postnatal period [OR = 39,766, 95% CI [21,792-72,565]], the overall household income [OR = 3,672, 95% CI [3,046-4,426]] are positively associated with underuse of postnatal care. On the other hand, this table shows that belonging to a poor social stratum [OR = 0.128, 95% CI [0.084-0.196]] or between poor and average [OR = 0.224, 95% CI [0.150-0.336]], the study level of the mother and her husband, the belief of the social environment in the importance of post-natal consultations [OR = 0,002, 95% CI [0.001-0.004]], the expenditure on care during the perinatal period [OR = 0.011, 95% CI [0.006-0.020]], the Availability of medical coverage [OR = 0.354, 95% CI [0.253-0.496]], and the RAMED as medical coverage [OR = 0,150, 95% CI [0,038-0,599]] are negatively associated with the underuse of post-natal consultations. Furthermore, this table shows that there is no significant association between the under-use of post-natal consultations and the primiparity, the 3rd parity, the high school study level, the higher study level, and the CNSS and the CNOPS type medical coverage.

Table No. 6: Factors associated with the underutilization of post-natal consultations by the women who have given birth

Variables	OR	IC (95%)	P
Medical variables			
Parity			
Primipare	0,536	[0,985-1,320]	0,080
2nd P	1,140	[1,082-1,264]	0,037
3rd P	0,929	[0,286-1,003]	0,51
Birth Process (Uncomplicated)	1,967	[1,290-2,998]	0,002
Socio-demographic variables			
Age range	1,084	[1,053-1,115]	<0,001
Provenance			
Urban	8,796	[4,392-17,617]	<0,001
Rural	4,105	[2,023-8,327]	<0,001

Social stratum			
Poor	0,128	[0,084-0,196]	<0,001
Between poor and average	0,224	[0,150-0,336]	<0,001
Level of education of the woman giving birth			
Illiterate	0,008	[0,001-0,097]	<0,001
M'Cid or Koranic school	0,053	[0,011-0,256]	<0,001
Primary	0,088	[0,019-0,404]	0,002
College	0,136	[0,030-0,617]	0,010
High school	0,409	[0,089-0,878]	0,250
Superior 1st and 2nd cycles	0,917	[0,187-0,490]	0,915
Husband's level of education			
Illiterate	0,050	[0,019-0,129]	<0,001
M'Cid or Koranic school	0,086	[0,039-0,190]	<0,001
Primary	0,126	[0,060-0,264]	<0,001
College	0,114	[0,071-0,296]	<0,001
High school	0,507	[0,246-1,045]	0,066
Superior 1st and 2nd cycles	2,267	[0,970-5,298]	0,059
Socio-cultural variables			
Belief of the social environment in the importance of post-natal consultations	0,002	[0,001-0,004]	<0,001
The influence of social environment on the sensation of pain and discomfort	22,754	[15,240-33,973]	<0,001
The influence of social environment on the decision to consult during the postnatal period	39,766	[21,792-72,565]	<0,001
Economic variables			
Total household income of the women who have given birth	3,672	[3,046-4,426]	<0,001
Perinatal care expenditures in the perinatal period	0,011	[0,006-0,020]	<0,001
Availability of medical coverage	0,354	[0,253-0,496]	<0,001
Type of medical coverage			
RAMED	0,150	[0,038-0,599]	0,007
CNSS	0,578	[0,148-2,257]	0,430
CNOPS	1,127	[0,272-4,678]	0,869

DISCUSSION

After studying the correlation between all the variables in this study and the dependent event the variables expressing a statistically significant correlation were introduced into a binary logistic regression.

As medical variables, the second parturient is 1.140 times more likely to be missed in the postpartum period. This contradicts the results of several studies that have demonstrated the association between multiparity and under-utilization of maternal health services, namely, the

Mbonye study [12], the Friedma et al [13], the Rahman study [14], the Dhaher study [15] and the Matijasevich et al [16] study. According to these studies, multiparous women choose to not go to health facilities for delivery and postnatal care. This is because, based on her experience, she views motherhood as a normal physiological process that is not life-threatening.

Women who had an eutocic births are 1.967 times more likely to miss post-natal visits. These results are different from those found in the literature in the Dahkal study [17], the Matijasevich et al study [16], the Telfer study [18], and the Adekunle study [19] on the use of postnatal services by women who have given birth. This research has shown that women who reported poor quality of care at the time of delivery or who had a dystocic delivery were less likely to seek postnatal care.

Logistic regression of the socio-demographic characteristics of women who has given birth revealed that being older increases the risk of underutilizing postnatal visits [1,084, [1,053-1,115]]. This finding confirms the results the Dieye study [20] that found that women over 34 years of age use less obstetric care. This result gainsay the Sirpe study [21]. This author suggested that the age of the pregnant woman does not affect the demand for obstetric care because no statistically significant association was found between these two variables.

The urban women who has given birth is 8.796 times more likely to don't consult during postpartum compared to the rural women who has given birth that 4.105 times more likely to underuse these consultations. This contradicts the results of several studies, including the Samb and Sakho study [22], on the determinants of the use of reproductive health services. These researchers have shown that the rural environment with its difficult access negatively affects the use of these services and as a corollary their health status.

Since the social stratum expressed a negative association with the dependent event. This indicates that the poorest women who have given birth are most likely to underutilize postnatal consultations. Certifying the results of the Ashford study [23] and the survey conducted by the World Bank in 56 developing countries [24]. According to these researches, access to primary health care and the use of health services increase sharply with the increase in the social level of the household.

Logistic regression also showed that high school and higher levels of education are not associated with the underutilization of postnatal consultations. Nevertheless, this regression

illustrated that as the levels study of both the mother and her husband decreased, the risk of being among those not followed in the postpartum period increased. This result is provided by several studies, including the Traore et al. study [25] and the Baya study [26], who reported that the frequency of prenatal consultations increases with the increase in the level of parents' study.

Similarly, the logistic regression of the socio-cultural characteristics of the women who have given birth showed that the social environment's belief in the importance of post-natal consultations was negatively associated with the use of post-natal consultations (OR= 0.002). The more this belief decreases, the more the non-use of post-natal consultations increases. This confirms the Adam and Herzlich research [27], who worked on "cultural modelling" to describe the influence of cultural framing on the demand for care. For these researchers, the cultural environment guides perceptions regarding the demand for care.

The presence of the influence of the social environment on the sensation of pain and discomfort on the part of the woman who has given birth increases the risk of not consulting a doctor in the postpartum period more than 22 times. Similarly, the presence of the influence of the social environment on the decision of women who has given birth, to consult during postpartum increases more than 39 times the risk of under-using these consultations. Corroborating with the results of Zaouaq's study [28] and Bakaou's study [29], having attested that decision-making power and the use of antenatal consultations are closely linked, with a very significant p-value < 0.005.

The analysis of the economic characteristics of women who have given birth revealed that the women who has given birth with a higher overall household income was 3.672 times more likely to don't consult than the case who did not represent this profile. Affirming the findings of Schultz [30], and Izambert [31], these studies found that members of low-income households do not access health services that contribute to their improved health status.

A woman with a lower expenditure in the perinatal period has a higher risk of don't seek care in the postpartum period (OR= 0.011); Certifying the results of the Poder study [32].

A woman with no medical coverage is more likely to don't consult during the post-natal period (OR= 0.354). Furthermore, according to the results of the logistic regression, medical coverage of the CNSS and CNOPS type are not associated with the dependent event. In addition, this statistical analysis showed that the women who did not have RAMED had a

higher risk of don't consult during the postpartum period, corroborating the results of the WHO/Europe report on inequality of access to care [33]. This report has shown that in disadvantaged populations there is a correlation between lack of medical coverage and problems of access to care.

CONCLUSION

This study showed the factors associated with the under-use of post-natal consultations by women who have given birth at the Souissi maternity hospital, attesting the need to take them into consideration when caring for pregnant women at the level of the different health care structures, in order to participate in the improvement of the national indicator of post-natal follow-up.

ACKNOWLEDGEMENTS

We would like to thank all the women who participated in this study and we would like to thank all the staff of the Souissi maternity hospital in Rabat for their collaboration. We also thank all the authors who read, criticized and approved this article.

CONFLICTS OF INTEREST

None.

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