

Research Article

Investigating the Psychosocial Dimension of Perinatality in Cameroon

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Abstract

Introduction: It is well known that events occurring during the prenatal period may affect the outcome of perinatality. Although the psychopathological theories that give account of psychological conflicts of the perinatal period are well described, these may be aggravated by a number of psychosocial factors which may vary according to context.

Methodology: We investigated some of these factors through a case-control study among Cameroonian women who manifested psychic impairments few days after delivery. The study was conducted in two university teaching hospitals of Yaoundé, over a period of six months.

Results: We observed that a number of psychosocial factors can effectively impact the quality of the perinatal period with serious maternal and neonatal repercussions. These factors are related with class distinctions, unequal distribution of wealth, health inequalities, and the poor quality of social relationships.

Conclusion: We may therefore conclude that preventing psychosocial risk factors through the reinforcement of the socioeconomic tissue and health systems may ease perinatality with favorable outcomes.

Keywords: Perinatality; Psychosocial Factors; Maternity; Postpartum

Introduction

Perinatality is a period of great somatic and psychological transformation processes in women. It is marked with a number of physiological and environmental readjustments which are indispensable for overcoming procreation-related challenges. Such challenges include the mind setting for conceiving, the physical constraint of carrying the pregnancy with a continuously growing fetus, the necessity to withstand the stress of the delivery process, and conditioning with maternity. This in addition with the task of breastfeeding and caring for the neonate [1-14]. Various somatic modification such as secondary amenorrhea, weight gain, abdominal distension, nausea, vomiting, and edema, may have significant psychic repercussions in pregnant women too. In effect, the changes of the woman's body image require time for the structuration and modulation of maternal representations of new appearances, feelings and emotions [1-6]. Moreover, the conscious acquaintance with protecting a fragile being developing from within oneself is paramount as well [15-26]. A mental representation could be considered as a thoughtful self-presentation and interpretation of a particular situation or event, constituting the content of the thought. More precisely, it may also be defined as the reproduction of an anterior perception or impression [1-6].

From a psychological stand point, during the perinatal period there is need for integration of ongoing changes and

anticipation with possible projection towards upcoming changes and challenges. Thus, mothers make further representations with the course of the pregnancy, delivery, postpartum, imagining and hypothesizing eventual complications, means of resolution and sources of support [1-6]. Anxiety may also set over possibilities or not for the complete restoration of body organs including the urogenital tract, uterine involution, reparation of the perineum and disgraceful cutaneous stigmata.

Besides psychosomatic issues of perinatality, there are preoccupations with social impressions, apprehensions, judgment and weight of parental responsibility. It is well known that pregnant women experience recurrent phantasmagoric thoughts over the baby physical appearance [15-26]. Furthermore, mothers' minds question paternal adoption capacity, acceptance and responsibility, as well as the reliability of relatives, entourage, and worries with the future social insertion of the growing infant [27-31]. This occurs mainly through polarized mental representations which are on one hand related with concerns about the future infant and on the other hand with the woman's self-ability to assume the mothering role according to social norms [1-6].

Psychologists believe that while representations about the future infant are essentially fantastic, those with materno-societal grounding are more complex with maternal childhood conflicts, and constitutes a pregnancy-bound important step for women maturation. These maternal infantile conflicts are related with identification to a mother who may have not been a good model [1-6]. The psychological resolution of these conflicts might enable the pregnant women to access a new level of integration and maturity, although with marked vulnerability. This process mental representations occurring throughout the perinatal period involves considerable psychological investment, with possible adverse effects on the psychic apparatus. This may cause diverse manifestations, including psychic disorders of the postpartum [1-6]. For more than a century, scientists and sociologists have demonstrated a robust relationship between psychosocial environment and mental health. However, psychosocial factors may vary from one context to another. In this survey, we investigated some of these factors in Cameroonian women during the perinatal period.

Methodology

We conducted an observational study with case-control design in two university teaching hospitals of Yaoundé, Cameroon over a period of six months. Our chosen study sites were the maternity services of the Yaoundé Central Hospital (YCH) and the Yaoundé Gyneco-Obstetric and Paediatric Hospital (YGOPH). We recruited a total number of 321 mothers, after determining a minimal sample size using Schlesselman formula. The group of cases comprised newly delivered women having manifested psychic disorders in postpartum (the baby blues), diagnosed with Kernerley's blues questionnaire. While that of controls comprised safe women. The recruits were investigated for psychosocial risk factors during the perinatal period using a pretested questionnaire. Various aspects of social life and interactions were investigated. Data was analysed using the software SPSS version 22, R 3.2, CSPro version 4.1. The results were expressed in percentages and averages, while considering standard deviations. Risk factors were identified by calculating the Odds ratio with a confidence interval at 95%. P-values < 0.05 were considered as statistically significant.

Results

Out of 321 newly delivered women recruited in this survey, 107 were diagnosed with psychic disorders in postpartum, with an incidence of 33.3%. Therefore, the group of cases comprised 107 women and that of controls 214. The mean age of the cases (29±6 years) was not statistically different ($p=0.322$) from that of the controls (30±6 years). With regard to all socio-demographic variables, only the socio-economic situation distinguished the two groups, by the fact that most of the controls had more than average or high socio-economic level.

Statistical association between socio-demographic factors and postpartum psychic disorders after univariate analysis are shown in Table 1. Low socio-economic situation was a statistically significant risk factor for the onset of psychic disorders of postpartum (OR=1.78, p -value=0.02). Having been depressive or anxious in the course of the pregnancy (OR=6.91, for 60.3% of affected mothers), just as sickness or complication during pregnancy (OR=2.53, for 14% of affected mothers), were statistically significant risk factors, with p -values<0.05 as shown on Table 2. Significant associations were established with some matrimonial factors. For instance satisfaction in couple relationship was a protective factor against the onset of the baby blues [OR= 0.35, CI (0.21-0.58), p -value<0.001], while recent troubles or conflicts in couple relationship was a risk factor for psychological impairment [OR 2.63, CI 1(56-4.62), p -value<0.001]. Details of these results are shown in Table 3. Recent stressing events in new mothers' lives studied were: adequate financial support from the family, having problems in couple relationship, conflicts in the family, severe case of illness in the family, job loss, and decease in the family. Apart

from the benefit of financial support from the family which was a significant protective factor (OR=0.53, $p=0.01$), all other events were risk factors. Having recent problems in couple relationship [OR=3.81, CI (2.2-6.59), $p\text{-value}<0.001$] and family conflicts [OR=5.56, CI (2.35-13.18), $p\text{-value}<0.001$] were statistically significant risk factors as well. Table 4 gives details of the associations between life stressing events and maternity blues. Emotional support and financial support accounted for statistically significant protective factors (OR<1, $p\text{-values}<0.05$). This social support was provided for by the partner or husband, a friend, and/or the family at large as shown in Table 5.

Socio-Demographic Characteristics	Cases (n=107)		Controls (=214)		Total (n=321)	OR	[IC 95%]	p
	n	(%)	n	(%)	n			
Hospital								
YGOPH	45	(42.1)	94	(43.9)	139	0.93	[0.57-1.5]	0.750
YCH	62	(57.9)	120	(56.1)	182	1.08	[0.68-1.7]	0.750
Region of origin (p=0,503)								
Adamawa	0	(0)	6	(2.8)	6	-	-	1.000
Centre	38	(35.5)	70	(32.7)	108	1.13	[0,38-3,36]	<0.001
East	8	(7.5)	7	(3.3)	15	2.39	[0,21-26,73]	0.616
Far North	1	(0.9)	4	(1,9)	5	0.50	[0,05-5,05]	0.524
Littoral	10	(9.3)	19	(8.9)	29	1.06	[0,26-4,25]	0.890
North	4	(3.7)	10	(4.8)	14	0.79	[0,18-3,48]	0.699
Northwest	7	(6.5)	13	(6.1)	20	1.08	[0,23-5,09]	0.870
South	3	(2.8)	14	(6.5)	17	0.41	[0,08-2,12]	0.159
Southwest	6	(5,6)	8	(3.7)	14	1.53	[0,49-4,82]	0.440
West	29	(27.1)	59	(27.6)	88	0.98	[0,1-9,14]	0.930
Other	1	(0.9)	4	(1.9)	5	0.50	[0,05-4,48]	0.524
Religion (p=0,462)								
Catholic	58	(54.2)	127	(59.3)	185	0.81	[0.48-1.37]	0.380
Protestant	35	(32.7)	54	(25.2)	89	1.44	[0.54-3.83]	0.158
Muslim	7	(6.5)	17	(7.9)	24	0.81	[0,21-3.1]	0.653
Other	5	(4.7)	15	(7.0)	20	0.65	[0,23-1.8]	0.414
Profession (0,979)								
housewife/no job	48	(44.9)	94	(43.9)	142	1.04	[0.54-2]	0.874
civil servant	19	(17.8)	37	(17.3)	56	1.03	[0.5-2.15]	0.917
private sector	25	(23.4)	49	(22.9)	74	1.03	[0.47-2.23]	0.925
auto-employment	15	(14.0)	34	(15.9)	49	0.86	[0.44-1.6]	0.661
Matrimonial situation (0,328)								
Single	27	(25.2)	38	(17.8)	65	1,56	[0.86-2.83]	0.116
Married	49	(45.8)	119	(55.6)	168	0,67	[0.06-7.61]	0.097
Divorcee	1	(0.9)	2	(0.9)	3	-	-	1.000
Widow	1	(0.9)	0	(0)	1	-	-	1.000
Live martially	25	(23.4)	50	(23.4)	75	1.00	[0.25-4.05]	1.000
Separate	4	(3.7)	5	(2.3)	9	1.60	[0.44-6.1]	0.473
Education level (0,144)								
Primary	14	(13.1)	14	(6.5)	28	2.15	[0.96-4.81]	0.050
Secondary	57	(53.3)	125	(58.4)	182	0.81	[0.49-1.35]	0.381
University	36	(33.6)	75	(35.0)	111	0.94	[0.58-1.54]	0.803
Socio-economic situation (0,022)								
Low	37	(34.6)	49	(22.9)	86	1.78	[1.04-3.05]	0,026
Average	48	(44.9)	130	(60.7)	178	0.53	[0.28-0.98]	0.007
High	22	(21.2)	35	(16.4)	57	1.38	[0.76-2.51]	0.200

Table 1: Socio-demographic factors.

Preparation to Conception, Description of Pregnancy and Delivery	Cases (n=107)		Controls (n=214)		Total		OR	[IC 95%]	P
	n	(%)	n	(%)	n				
Description of the Conception									
Did you plan this pregnancy?									
Yes**	51	(47.7)	132	(61.7)	183	0.57	[0.35-0.9]	0.017	
No	56	(52.3)	82	(38.3)	138	1.77	[1.1-2.8]		
Did you conceive naturally?									
Yes	107	(52.3)	213	(99.5)	320	-	-	0.479	
No	0	(0)	1	(0.5)	1	-	-		
Did you desire this pregnancy?									
Yes**	84	(78.5)	200	(93.5)	284	0.26	[0.13-0.52]	<0.001	
No	23	(21.5)	14	(6.5)	37	3.9	[1.36-0.7]		
DESCRIPTION OF THE PREGNANCY									
Did you go for prenatal consultations?									
Yes	107	(100)	214	(100)	321	-	-	-	
No	0	(0)	0	(0)	0	-	-		
Did you do a prenatal check-up?									
Yes**	101	(94.4)	212	(99.1)	313	0.6	[0.03-0.8]	0.011	
No	6	(5.6)	2	(0.9)	8	6.3	[1.19-30.88]		
Did you feel depressed and anxious during pregnancy?									
Yes **	70	(65.4)	46	(21.5)	116	6.91	[4.13-11.56]	<0.001	
No	37	(34.6)	168	(78.5)	205	0.14	[0.09-0.24]		
Sickness or complication during pregnancy?									
Yes**	14	(13.1)	12	(5.6)	26	2.53	[1.13-5.69]	0.021	
No	93	(86.9)	202	(94.4)	295	0.39	[0.18-0.87]		

Table 2: Preparation to conception, description of pregnancy and delivery.

Couple Relationship		Cases (n=107)		Controls (n=214)		Total		OR	[CI 95%]	P
		n	(%)	n	(%)	n				
Are you satisfied with your couple relationship?										
Yes **	62	(57.9)	171	(79.9)	233	0.35	[0.21-0.58]	<0.001		
No	45	(42.1)	43	(20.1)	88	2.88	[1.7-4.9]			
Did you recently had troubles or conflicts in your couple?										
Yes **	36	(33.6)	34	(15.9)	70	2,68	[1.56-4.62]	<0.001		
No	71	(66.4)	180	(84.1)	251	0,37	[0.23-0.62]			

Table 3: Matrimonial factors.

Life Stressing Events	Cases (n=107)		Controls (n=214)		Total		OR	[CI 95%]	P
	n	(%)	n	(%)	n				
Financial support from the family?									
Yes **	64	(59.8)	158	(73.8)	222		0.53	[0.32-0.87]	0.01
No	43	(40.2)	56	(26.2)	99		1.89	[1.15-3.06]	
Having problems with your couple relationship?									
Yes **	41	(38.3)	30	(14.0)	71		3.81	[2.2-6.59]	<0.001
No	66	(61.7)	184	(86.0)	250		0.26	[0.15-0.44]	

Conflict in your family?						
Yes**	19	(17.8)	8	(3.7)	27	5.56 [2.35-13.18]
No	88	(82.2)	206	(96.3)	294	0.18 [0.07-0.42]
Decease in your family?						
Yes **	9	(8.4)	11	(5.1)	20	1.69 [0.68-4.22]
No	98	(91.6)	203	(94.9)	301	0.59 [0.24-1.46]
Severe case of illness in the family?						
Yes**	15	(14.0)	17	(7.9)	32	1.89 [0.9-3.95]
No	92	(86.0)	197	(92.1)	289	0.53 [0.26-1.2]
Job Loss?						
Yes **	6	(5.6)	13	(6.1)	19	0.92 [0.34-2.49]
No	101	(94.4)	201	(93.9)	302	1 [2.46-2.9]

Table 4: Life stressing events and maternity blues.

Social Support	Cases (n=107)		Controls (n=214)		Total	OR	[IC 95%]	P
	n	(%)	n	(%)	n			
Adequate emotional support from the partner?								
Yes **	74	(69.2)	189	(88.3)	263	0.3	[0.17-0.53]	<0.001
No	33	(30.8)	25	(11.7)	58	3.37	[1.88-5.87]	
Adequate financial support from the partner?								
Yes **	73	(68,2)	191	(89,3)	264	0,26	[0.14-0.47]	<0.001
No	34	(31,8)	23	(10,7)	57	3.87	[2.16-6.9]	
Can you count on your partner when you are in need?								
Yes **	76	(71,0)	199	(93,0)	275	0,18	[0.09-0.36]	<0.001
No	31	(29,0)	15	(7,0)	46	5,41	[2.8-10.4]	
Do you think you can trust your partner?								
Yes **	71	(66.4)	188	(87.9)	259	0.27	[0.15-0.48]	<0.001
No	36	(33.6)	26	(12.1)	62	3.6	[2.03-6.33]	
Did you recently had conflicts with your friends?								
Yes **	9	(8.4)	7	(3.3)	16	2.72	[0.98-7.51]	0.046
No	98	(91.6)	207	(96.7)	305	0.36	[0.13-1]	
Do you benefit emotional support from your family?								
Yes	91	(85.0)	211	(98.6)	302	0.08	[0.02-0.28]	<0.001
No **	16	(15.0)	3	(1.4)	19	12.3	[2.5-42.5]	
Do you benefit adequate emotional support from your friends?								
Yes **	79	(73.8)	188	(87.9)	267	0.39	[0.22-0.71]	0.002
No	28	(26.2)	26	(12.1)	54	2.5	[1.4-4.6]	
Financial support from the family?								
Yes **	64	(59.8)	158	(73.8)	222	0.53	[0.32-0.86]	0.010
No	43	(40.2)	56	(26.2)	99	1.9	[1.15-3.13]	
Adequate financial support from your friends?								
Yes **	48	(44.9)	132	(61.7)	180	0.51	[0.32-0.81]	0.004
No	59	(55.1)	82	(38.3)	141	1.98	[1.24-3.14]	
Can you count on your family when you are in need?								
Yes **	90	(84.1)	208	(97.2)	298	0,15	[0.06-0.4]	<0.001
No	17	(15.9)	6	(2.8)	23	6.5	[2.48-17.29]	
Can you count on your friends when you need them?								

Yes **	66	(61.7)	161	(75.2)	227	0,53	[0,32-0,87]	0,012
No	41	(38.3)	53	(24.8)	94	1.88	[1,15-3,12]	
Do you think you can trust your family?								
Yes **	94	(87.9)	207	(96.7)	301	0.24	[0.09-0.63]	0.002
No	13	(12.1)	7	(3.27)	20	4	[1.56-10.49]	
Do you think you can trust your friends?								
Yes **	45	(42.1)	137	(64.0)	182	0.41	[0.25-0.66]	<0.001
No	62	(57.9)	77	(36.0)	139	2.45	[1.52-3.9]	

Table 5: Social support.

Discussion

Our survey was somehow limited by measurement means and the studied population. The instrument used to diagnose psychic disorders of the postpartum was the Kennerley's blues questionnaire. It is normally an auto-evaluation questionnaire used to assess the baby blues which is the milder and most prevalent psychic impairment of postpartum [32]. In this survey, patients were given questionnaires to fill out and they could refer to the principal investigator, for explanations. This involved some assistance which might have increased factors of subjectivity through suggestion and induction thereby affecting responses and results. The original Kennerley's Scale was developed through studies carried out in the European context of western countries and on white subjects essentially, with particular genetic predispositions and cultural influences which differ from blacks [32]. Moreover, western countries may have specific psycho-sociocultural context with related influences which are quite different from Africans. Therefore, applying the scale to Cameroonian subjects might have involve some bias too. The baby blues could be a trivial and fleeting condition in the majority of cases, lasting for less than two weeks with varying symptoms in time and space. The task of following a considerably large sample of women on a daily basis was another important difficulty encountered [33-40]. The fact that all women consenting to take part in the survey were systematically recruited without further investigations including those with past history of mental illness, might have affected results through amplification. Likewise, distinction with regards to the mode of delivery was not taken into account whereas, related stress may have affected mothers emotional state and hence the given responses.

The overall prevalence of the baby blues in our series was 33.3%, which is considerable but lower than the average found in the literature, though not very different from recently reported incidences [40,41]. However, it is quite close to 31.1% prevalence found in a similar context to ours by Adewuya, et al., in Nigeria [42]. As described by a number of researchers, the psychosocial risk factors investigated were principally rooted in class distinctions, unequal distribution of wealth, health inequalities, and the poor quality of social relationship. Concerning the hospital distribution of patients, the YCH registered the highest number of participants (57%). The reason being that, it is the first outlay of all maternity services of the Yaoundé town and the country at large. Patients of all social ranks can provide the affordable means for health care and benefit subventions generally attributed by the hospital for indigent patients. Age distribution of participants revealed an average of 29±5 years, corresponding to women's reproductive ages, at which they are expected to be at their first delivery at least [43]. The selected sites of study were both teaching hospitals of Yaoundé, the capital of the Centre region. Most participants originated from Yaoundé and few other cities in the neighbourhood, making the Centre region the most represented, followed by the West region. In effect the west region is not only proximal to the centre, but its inhabitants seem to be the most migratory of the country. Concerning the religious distribution of selected women, the general state of confessional distribution of the country and that of the world at large was reflected [43]. The Christian religion was predominant with 85.13% of women seen. Most of the women who developed maternity blues were Christians of protestant obedience. The Muslim religion registered the least number of cases, for it appears to be a highly conservatory religion which admits pregnancy only in context of marriage. This is consistent with the fact that Marriage occurred as a protective factor against postpartum psychic impairment in this survey. Although seventy-five percent of women (75%) were either married or living martially. A considerable number of 20% gave birth while being single, generally because of unplanned pregnancies, which were significant risk factor for the postpartum blues. All women recruited in our survey were literate. In effect, it is worth noting that for a good number of years now education has been a top priority for the Cameroonian government [43]. As a matter of fact, ninety percent of mothers in this survey had an education level situated between the secondary and university levels. This enabled them to understand and answer the questionnaire accurately. Concerning the professional and occupational distribution of participants, the private sector was the most representative with 23% of new mothers having professions in this sector. This could be as a resultant of the fact that entrance into public

service in our context is highly competitive, and so private enterprise and initiatives are encouraged [43]. Twenty-six point two percent (26.2%) of participants estimated they were living below socio-economic standards and it revealed to be a risk factor for the onset of postpartum psychic disorders. This could be explained in terms of rising level of poverty especially in low social classes, mainly because of lack of employment and financial crisis, which are worsened by ongoing civil in Cameroon.

Among specific psychosocial risk factors identified we therefore noted the low socio-economic situation, women having recent problems in couple relationship, family conflicts, lack of emotional support, having felt depressed or anxious during pregnancy. These results were similar to those of Adewuya, et al., survey in Nigeria [42]. They can be discussed through the fact that in Cameroon, just as in Africa in general, the importance of cultural influences and family bonding are still very pregnant in the conscience of individuals. They are naturally motivated to care for one another when need be, this with remarkable psychological support [39]. As a matter of fact, perinatality may prove to be very challenging, especially when complications arise as it was the case with a considerable number of women recruited in our series, who delivered through caesarean section. More than usual, the new mother needs to be able to rely on her family and relatives. In addition to the pains the mother endures, she should not be further preoccupied. Failure to provide this support network might lead to psychological sufferings and eventually manifestations [39].

Although the absence of a risk factor could be interpreted as being protective and vice-versa, some protective factors per se against the onset of psychological impairment in these newly delivered women were identified as well. They were: women having from average to high socioeconomic situation, a peaceful family, good and satisfying couple relationship, benefiting adequate financial support from partner, family or friends, adequate emotional support from the partner, family and/or friends, being able to rely on the partner, family and/or friends when need be, having confidence in the conjoint and friends, having planned the pregnancy, desired and done prenatal check-up. These factors may have accounted for strong psychosocial support that was reassuring and psycho-prophylactic.

Conclusion

The main objective of this survey was to investigate the psychosocial dimension of perinatality through the determination of related psychosocial factors. To fulfil this objective, we carried out a case-control study among women with psychic impairments during immediate postpartum. We found that psychosocial factors such as low socio-economic situation, recent problems in couple relationship, lack of emotional and financial support, family conflicts, having felt depressed or anxious during pregnancy were predisposing factors, likely to alter the quality of perinatal period with unfavourable outcomes. However, it appeared that the absence of these risk factors was as well protective for women. Therefore, improving socioeconomic standards, social relationships, financial assistance to indigenous populations and health systems may ease perinatality.

Conflict of Interest

The authors have no conflict of interest to declare.

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