

Postpartum Blues in Dakar: Prevalence and Risk Factors

Sokhna Seck*, Safia Fall, Momar Camara, El Hadj Makhtar Ba, Adama Koundoul, Maimouna Dieye, Ndeye Awa Dieye, Papa Lamine Faye, Aida Sylla

Department of Psychiatry and Medical Psychology, National University Hospital Center of Fann, Dakar, Senegal

Email: *sooxnasec@yahoo.fr

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Abstract

Introduction: Postpartum blues (PPB) is a common and temporary mood disorder that occurs after childbirth. Although it is often minimised, it may precede more severe psychiatric conditions. This study aimed to assess the prevalence of PPB and identify associated risk factors among recent mothers in Dakar, Senegal. **Methods:** This cross-sectional, descriptive and analytical study was conducted in two public hospitals in Dakar from 12 December 2023 to 30 January 2024. One hundred postpartum women (between days 2 and 10 postpartum) were included in the study. PPB were screened for using the Kennerley and Gath questionnaire (French version), a validated tool recognised for its specificity and sensitivity. The 28-item questionnaire is answered with a YES or NO response. Sociodemographic, clinical, obstetric and psychosocial data were collected and analysed using Epi Info, with a significance threshold set at $p < 0.05$. **Results:** The prevalence of PPB was 40%. No significant association was found with sociodemographic or obstetric characteristics. However, the following psychosocial factors were significantly associated with PPB: absence of a trusted confidant ($p = 0.00$), lack of partner support ($p = 0.01$) and perceived mistreatment during antenatal care ($p = 0.004$). **Conclusion:** PPB is common in the Dakar context. The findings emphasise the vital importance of emotional and relational support in preventing PPB. The study recommends the systematic screening for PPB during postpartum care, as well as the promotion of respectful and empathetic maternity services.

Keywords

Postpartum Blues, Prevalence, Psychosocial Factors, Dakar

1. Introduction

The postpartum period is a time of psychological vulnerability for women due to

the physiological, emotional and social changes it involves. Among the various postpartum mood disorders, postpartum blues (PPB) is a common and often trivialised transient condition. It typically manifests within the first few days after childbirth, presenting with emotional lability, unexplained crying, anxiety and sleep disturbances. Despite its seemingly benign nature, it can precede more severe disorders, which can have harmful consequences for the mother, child and family dynamics. In sub-Saharan Africa, and particularly in Senegal, where only one similar study was conducted over twenty years ago, few studies have addressed this phenomenon. Considering this, we conducted a study to assess postpartum blues among women who had recently given birth in Dakar.

2. Objectives

The main objective of this study is to determine the prevalence of postpartum blues (PPB) among women who have recently given birth in two hospital facilities in Dakar.

The specific objectives are to:

- Describe the sociodemographic characteristics of women affected by PPB.
- Identify the main risk factors associated with this condition, particularly clinical, obstetric and psychosocial factors.

3. Methodology

We conducted a cross-sectional, descriptive, and analytical study.

It was conducted over a six-week period from 12 December 2023 to 30 January 2024 in two public hospitals in Dakar with gynaecology-obstetrics departments providing postnatal care: Abass Ndao Hospital Centre and Philippe Maguilène Senghor Hospital Centre.

The study population consisted of women who had given birth and were hospitalised between the second and tenth day postpartum. This postpartum period was chosen because symptoms typically manifest during this timeframe. Each woman was interviewed once.

The inclusion criteria were:

- Women aged 18 years or over.
- Women who had delivered vaginally or by caesarean section in one of the two centres.
- Women who provided free, informed and verbal consent.

The exclusion criteria were:

- Patients who had given birth to a child with malformations.
- Patients who had given birth to a stillborn child.
- Patients whose baby died after birth.

Postpartum blues were screened for using the Kennerley and Gath questionnaire (French version), a validated tool recognised for its sensitivity and specificity.

It was recently validated in a French-speaking population by Binda *et al.* (2020), who confirmed its ability to detect subclinical forms of postpartum mood disorder.

ders [1].

The questionnaire was administered in a hetero-evaluated interview by the same interviewer.

The questionnaire includes 28 items that are coded as either “Yes” or “No”.

Yes = 1 and No = 0 for the following variables: urge to cry; tension; feeling down; helplessness; difficulty expressing feelings; distraction; confusion; anxiety; desire to be alone; rumination; self-pity; absence of feelings or emotions; depression; too many emotions; unstable state of mind; fatigue; irritability; uncontrollable crying; sensitivity; and unstable mood.

Yes = 0 and No = 1 for the following variables: able to concentrate; full of energy; relaxed; happy; confident; lively; calm; peaceful.

The values obtained for these items were then added together and divided by 28. The result of this division, expressed as a percentage, determined the variable called “CORE” for each woman. The average score was then calculated by dividing the sum of all scores by 100. Women whose score was above average had BPP.

Other data were collected using a structured form covering sociodemographic information, medical and psychiatric history, the course of the pregnancy, labour and delivery, and contextual psychosocial factors.

Statistical analysis was performed using Epi Info software, version 7.2.6.0. Qualitative variables were compared using the chi-squared test, with a significance level set at $p < 0.05$.

Data collection complied with ethical considerations. Free and informed consent was obtained from each participant prior to the interview. Participants were informed of their right to withdraw from the interview at any time without consequence. Furthermore, women in need of psychological support were provided with information about relevant services.

4. Results

4.1. Prevalence of Postpartum Blues

Of the 100 women interviewed between days two and ten after childbirth, 40 were found to have postpartum blues, yielding a prevalence rate of 40%.

4.2. Sociodemographic Data (See Table 1)

The mean age of the participants was 29.83 years, with the largest age group being 25 - 34 years (43%).

In terms of area of residence, 79% of women lived in Dakar city, while 21% lived in the suburbs, primarily in Guediawaye, Pikine, Keur Massar or Rufisque.

Religiously, the population was predominantly Muslim (95%), with a Christian minority (5%).

In terms of marital status, 94% of the women were married, of whom 58% were in monogamous unions and 42% in polygamous ones.

Educational levels varied: 35% had received a primary education, 35% a secondary education, 15% a higher education and 10% had not received any formal

schooling.

As for employment status: 35% were housewives, 27% were salaried workers, 23% were entrepreneurs and 15% were unemployed.

Table 1. Sociodemographic data.

Variables	Percentage (%)
Age (years)	
18 - 24	29
25 - 34	43
35 - 44	28
Residence	
Dakar	79
Keur Massar	10
Guédiawaye	3
Pikine	3
Rufisque	3
Autre ville	2
Level of education	
Primary	35
Secondary	35
Higher education	15
Quranic school	5
No formal education	10
Occupation	
Entrepreneur	23
Employee	27
Unemployed	50
Marital status	
Married	94
Single	1
Widow	1
Common-law relationship	3
Divorced	1

4.3. Clinical and Obstetric Data

Medical history

Of the 100 participants, 12 women had a medical comorbidity, representing a prevalence of 12%. The most frequently reported conditions were:

- hypertension (42% of those with comorbidities).
- diabetes (33%).
- Sickle cell disease (17%)
- Goitre (8%).

Surgical history

One third of the women (33%) had a history of surgery. Among these, a previous caesarean section was the main cause, accounting for 82%. Other reported procedures included myomectomy (9%), ovarian cystectomy (6%) and appendectomy (3%).

Psychiatric history

Personal psychiatric history was rare, reported in only 2% of women.

However, seven participants reported a family psychiatric history. 57.1% of these cases involved a first-degree relative, while 42.9% involved a second-degree relative.

Gynecological and obstetric history

Regarding gravidity, 32% were primigravida, 52% had experienced two to four pregnancies and 16% were grand multiparas (five or more pregnancies).

The parity distribution was similar: 37% were primiparous, 52% had two to four living children and 11% had given birth five or more times.

Previous abortions were reported by 21% of women, with an average of 1.5 abortions per woman (range 1 - 5).

Additionally, 8% had experienced the death of a child, including two stillbirths.

Pregnancy course

The pregnancy was desired in 96% of cases. Prenatal care was generally satisfactory: 99% received follow-up care, although only 41% had their first prenatal consultation before 12 weeks of gestation.

Obstetric complications occurred in 16% of cases, mainly:

- hypertension: 37.5%
- Gestational diabetes: 25%
- Prolonged pregnancy: 12.5%
- Pregnancy-related vomiting: 12.5%
- Ovarian cysts: 6.25%
- Severe pre-eclampsia: 6.25%

During prenatal follow-up:

- 97.98% reported feeling supported by the medical staff.
- 96.97% were satisfied with the quality of medical care.
- 27.27% attended childbirth preparation sessions.
- 5.05% reported being mistreated by healthcare staff during pregnancy.

Delivery and newborn characteristics (see [Table 2](#))

Cesarean section was the predominant mode of delivery, accounting for 69% of cases, while 31% of women gave birth vaginally.

In terms of gestational age at delivery, 78% of births occurred between 37 and 42 weeks of amenorrhoea, corresponding to full term. Preterm births, occurring

before 37 weeks, represented 21% of cases. Only 1% of pregnancies went beyond 42 weeks.

Table 2. Delivery and newborn data.

Variables	Percentage (%)
Mode of delivery	
Cesarean section	69
Vaginal delivery	31
Gestational age	
37 - 42 weeks	78
<37 SA weeks	21
>42 SA weeks	1
Birth weight	
<2.5 kg	18
2.5 - 4 kg	80
>4 kg	2
Sex of the newborn	
Male	62
Female	38
Desired sex	
Yes	43
No	17
Indifferent	40
Feeding	
Exclusive breastfeeding	64
Mixed feeding	36

In terms of birth weight, most newborns (80%) weighed between 2.5 and 4 kilograms, which is within the normal range. Low birth weight (less than 2.5 kg) was observed in 18% of cases, whereas macrosomia (birth weight over 4 kg) was rare, occurring in only 2% of newborns.

The sex distribution of the newborns showed male predominance, with 62% being boys and 38% being girls.

Regarding feeding practices, exclusive breastfeeding was the most common method, chosen by 64% of mothers. The remaining 36% practised mixed feeding, combining breast milk with formula.

When asked about their preferred gender, 43% of mothers said they had the baby they wanted. In contrast, 17% did not get the sex they had hoped for, while 40% were indifferent to the baby's sex.

4.4. Psychosocial Factors (See Table 3)

The data collected highlighted key aspects of the emotional and social environment experienced by women in the postpartum period.

Many participants (94.95%) reported feeling supported by their partner during this period. Similarly, 93.94% stated that they received help with caring for their newborn.

Eighty-nine per cent of the women perceived their relationships with in-laws as positive.

However, only 80.81% reported having someone they could confide in, suggesting that around 20% experienced some degree of emotional isolation.

Around one quarter of the women (24.24%) had experienced a stressful life event during pregnancy, which could be a factor in emotional vulnerability.

Finally, 6.06% of participants reported being victims of domestic violence, whether psychological, verbal or physical.

Table 3. Psychosocial factors.

Variables	Percentage (%)
Spousal support	94.95
Support with baby care	93.94
Good relationship with in-laws	89.90
Presence of a trusted person	80.81
Stressful life event during pregnancy	24.24
Stressful life event during pregnancy	6.06

4.5. Statistical Analysis: Correlations with Postpartum Blues

Bivariate analysis of the presence of postpartum blues alongside various other variables revealed several significant associations.

No such association was found for the following factors: marital status, educational attainment, personal medical or psychiatric history, obstetric history (e.g. abortion or infant death), method of delivery, infant feeding practices or the baby's sex.

However, several psychosocial factors were found to be statistically associated with the occurrence of postpartum blues:

- The absence of someone to confide in was strongly correlated with postpartum blues ($p = 0.00$).
- A lack of spousal support was also statistically significant ($p = 0.01$).
- The perception of mistreatment during prenatal consultations was also significantly linked to the presence of postpartum blues ($p = 0.004$).

Other factors, such as experiencing domestic violence or a stressful life event during pregnancy, showed a trend towards significance but did not reach the required threshold (e.g. $p = 0.07$ for domestic violence).

These results emphasise the importance of interpersonal relationships and emotional climate in the development of postpartum blues (**Table 4**).

Table 4. Significant correlations with postpartum blues.

Variables	Chi ²	Odds ratio (OR)	P-value	Confidence interval (CI)
Feeling of mistreatment during prenatal care	8.10	Not determined (ND)	0.004	ND
Absence of a trusted person to confide in	13.51	7.87	0.00	2.35 - 26.43
Lack of spousal support	6.41	0	0.001	ND

5. Discussion

5.1. Prevalence

The prevalence of postpartum blues (PPB) in this study was 40%, indicating its frequency and concern. This figure is higher than that reported in the only previous Senegalese study (24%) [2] and exceeds rates found in some European populations (15% - 30%, depending on the country) [3]. It is close to the highest rates recorded in Asia (44.3% in Hong Kong SAR) [4] and West Africa (31.3% in Nigeria) [5].

A recent meta-analysis by Shorey *et al.* (2021) confirms this global variability, with rates ranging from 13% to 76%, depending on the region, methodology and diagnostic criteria used [6].

These differences in prevalence can be explained by a number of factors, including methodological differences in the tools used and the timing of the assessment, as well as cultural differences in emotional norms and social factors such as precariousness and isolation.

Thus, the high prevalence observed should be interpreted as both an epidemiological alert and a reflection of the profound social changes affecting the maternal experience in Senegal.

5.2. Associated Factors

Sociodemographic characteristics

This study did not reveal any significant link between PPB and the following sociodemographic variables: age, education level, marital status, occupation and place of residence.

This is consistent with Beck's [7] conclusion that it is difficult to establish a clear sociodemographic "risk profile" for PPB. Postpartum blues appears to be a cross-cutting issue, affecting both young primiparas and experienced multiparas, as well as educated women and those without formal education, and women in both urban and suburban settings. However, Dieng [2] noted a slight influence of education level and occupation on PPB in her study.

These results are also corroborated by a recent study by Bobo *et al.* (2022),

which shows that the determinants of BPP are more closely linked to contextual factors, such as support, stress and domestic violence, than to sociodemographic variables [8].

The consistency of these findings suggests that PPB is more related to immediate emotional and relational conditions than to individual characteristics, shifting the focus of prevention towards social rather than biomedical factors.

Importance of psychosocial support

Correlation analysis clearly highlights the importance of emotional and spousal support:

- The absence of a trusted person to confide in was strongly associated with postpartum blues ($p = 0.00$).
- Lack of support from the partner also emerged as a significant factor ($p = 0.01$).
- The perception of mistreatment during antenatal consultations was another significant risk factor ($p = 0.004$).

These findings are consistent with previous research. O'Hara and Swain [9] demonstrated that social support—emotional, instrumental and informational—is one of the strongest determinants of perinatal psychological vulnerability. Dennis and Ross [10] confirmed that the perceived quality of spousal support directly influences the severity of postpartum depressive symptoms. Therefore, it is the subjective quality of marital and friendship bonds that proves to be more decisive than formal marital status.

Our results are further supported by findings from a study referenced by Murata *et al.* [11], which showed that women presenting with postpartum blues reported significantly reduced support during the first week after childbirth. This lack of support was apparent at various levels: within the household from the mother, spouse and other family members and friends.

These findings echo the results of a recent study by Morais *et al.* (2023), which demonstrated a direct relationship between maternal mental health and the perception of marital support during the postpartum period [12].

Similarly, Chrzan-Dętkoś *et al.* (2021) emphasise the mediating role of perceived support in the relationship between stressful events during pregnancy and symptoms of depression or the postpartum blues [13].

This perspective requires a relational and community-based approach to postpartum mental health. This approach includes partners, family members and healthcare professionals, who work together to provide support.

Role of Family Psychiatric History

Our study didn't find a significant association between PPB and personal or family psychiatric history. However, the presence of family history in 7% of cases suggests that this component should not be overlooked. Kennerley and Gath [14] highlighted the role of latent psychological vulnerability in the onset of postpartum blues. Other authors, such as Stein [15], propose a continuum between the postpartum blues, postpartum depression and puerperal psychosis involving biological, hormonal and hereditary factors.

Early identification of women with a family psychiatric history could therefore be incorporated into targeted prevention strategies.

Study Limitations

Several limitations of this study should be noted:

- The small sample size (100 patients), which limits statistical generalization.
- The cross-sectional design: the absence of longitudinal follow-up to track progression toward postpartum depression or resilience.
- The hetero-administered questionnaire: possible biases related to social desirability or reluctance to express psychological distress in a cultural context that does not easily accommodate such complaints.

6. Conclusions

Postpartum blues, often minimized, is a common reality in the context of Dakar, with a prevalence of 40% identified in this study. Although typically transient, it can be a precursor to more severe disorders and thus deserves particular attention.

The results obtained underscore the critical importance of psychosocial support, especially spousal support and the presence of a trusted confidant. The perception of mistreatment during pregnancy also emerged as a significant factor, pointing to the need for respectful and empathetic care for women in maternity settings.

Considering these findings, several recommendations can be made:

- Integrate systematic screening for postpartum blues into postnatal consultations.
- Strengthen healthcare workers' training in kindness and attentive listening during prenatal care.
- Raise awareness among partners and families about the importance of their role in providing emotional support during the postpartum period.
- Continue research, particularly longitudinal studies, to better understand postpartum psychological trajectories in the African context, particularly in Senegal.

This study provides a useful starting point for implementing preventive strategies in perinatal mental health in Senegal.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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