# Rate of Bipolar Affective Disorder or Schizoaffective Disorder Diagnosis in Women with a First Presentation to Secondary Care Mental Health Services During the Perinatal Period

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## Background

- The perinatal period is a time of known risk of recurrence of bipolar affective disorder (BPAD) for women[1]. Growing evidence suggests the perinatal period also increases the risk of BPAD onset.
- For approximately one third of women experiencing a first episode of post-partum psychosis, this is the index episode of a severe mental illness (SMI), typically one within the bipolar spectrum[2].
- Growing evidence suggests non-psychotic post-natal presentations could be an index episode of bipolar disorder[3,4].

## Aims

- To understand bipolar affective or schizoaffective risk in women first presenting to secondary care services within the perinatal period and examine factors which influence this risk.

## Methods

- Retrospective electronic case register study from the South London and Maudsley NHS Foundation Trust (SLaM).
- Anonymised records were included for any woman aged 18-64 with an index episode resulting in a first accepted referral to SLaM between 1/4/2008 and 31/3/2022.
- Primary outcome:
  Rate of bipolar/schizoaffective disorder diagnosis >28 days after index presentation.
- Women were stratified into either presentation during pregnancy, postnatally (up to 12 months from delivery), or outside the perinatal period. Results were adjusted for maternal age, ethnicity, and presenting diagnosis.

## Results

- 81,752 women were included. Overall, 1.8% received a diagnosis of bipolar or schizoaffective disorder after their initial presentation (at least 28 days later).
- 8,021 (9.8%) women presented perinatally, of which 53.8% pregnant/postnatal status was unknown. In the postnatal subgroup, 2.9% later received a bipolar/schizoaffective diagnosis, compared to 1.8% and 1.3% in the non-perinatal and pregnant subgroups respectively (p<0.001).
- A logistic regression model adjusted for age and ethnicity showed the post-natal period was associated with a higher risk of future bipolar or schizoaffective diagnosis (Table 1a). This trend continued after adjusting for initial diagnosis (Table 1b).
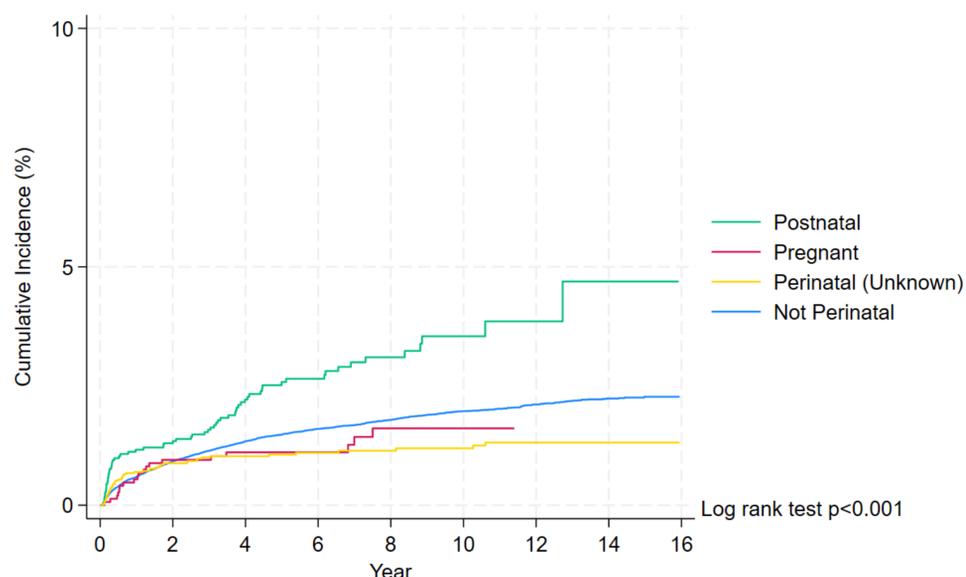- Survival analysis showed sustained postnatal risk (Figure 1).



**Figure 1:** Inverse Kaplan-Meier curve showing cumulative incidence of bipolar affective or schizoaffective disorder over time (years).

- Psychotic depression (F32.3) was associated with six-fold increased risk of future diagnosis of bipolar or schizoaffective disorder compared to unipolar depression. For post-partum psychosis (F53.1), the risk was almost ten-fold during follow-up. Other non-psychotic mood disorders were associated with three-fold higher risk. (Table 1b)

| | OR[1] ([95%CI[2]], p-value) |
|---|---|
| **(a) Adjusted for age and ethnicity** | |
| *Perinatal Status* | |
| Non-perinatal | Ref |
| Pregnant | 0.62 ([0.39-0.98], p=0.039) |
| **Postnatal** | **1.42 ([1.10-1.83], p=0.008)** |
| Perinatal (Unknown) | 0.58 ([0.43-0.77], p<0.001) |
| **(b) Adjusted for age, ethnicity and presenting diagnosis** | |
| *Perinatal Status* | |
| Non-perinatal | Ref |
| Pregnant | 0.69 ([0.44-1.09], p=0.114) |
| **Postnatal** | **1.16 ([0.87-1.54], p=0.310)** |
| Perinatal (Unknown) | 0.58 ([0.43-0.77], p<0.001) |
| *Presenting Diagnosis* | |
| Unipolar Depression (F32, F33, excl. F32.3 and F33.3) | Ref |
| Psychotic Depression (F32.3, F33.3) | 6.12 ([4.16-9.01], p<0.001) |
| Other Mood Disorder (F34, F38, F39) | 3.19 ([2.24-4.53], p<0.001) |
| Severe Mental and Behavioural Disorders of the Puerperium (F53.1) | 9.99 ([5.87-17.00], p<0.001) |

**Table 1:** Logistic regression model adjusted for (a) age and ethnicity, and (b) age, ethnicity and presenting diagnosis. [1]OR: Odds Ratio; [2]95%CI: 95% confidence interval.

## Conclusions

- Women first presenting postnatally had higher risk of future bipolar or schizoaffective disorder diagnosis compared to first presentation in pregnancy or outside the perinatal period, supporting similar previous studies.
- Presenting with postpartum psychosis had more than nine-fold greater risk of later bipolar diagnosis compared to unipolar depression.
- Delayed bipolar disorder diagnosis leads to worse long-term outcomes for women. Given the burden of perinatal mental illness, future investigations should prioritise improving early identification and treatment.

## References

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