

## Factors associated with postpartum psychiatric disorders using routine administrative data.

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### Background

Almost twenty percent of women worldwide experience mental health disorders following childbirth. Despite their importance and consequences, postpartum psychiatric disorders are still under-investigated. In Brazil, studies are restricted to state capitals and are not representative of the country as a whole. Understanding the factors associated with postpartum psychiatric disorders can provide insights for adequate maternal mental health screening. This study was conducted with the objective of evaluating factors associated with postpartum psychiatric disorders in Brazil.

### Methods

We used Authorization of Outpatient Procedure data for women who used community mental health services in Brazil between 2008 and 2012. The dependent variable was the diagnosis of mental disorders and behavioural factors associated with the puerperium (ICD-10 code F53). Age categorized in quartiles and Psychosocial Care Centre (CAPS) coverage were covariates considered for the analysis. To partially neutralize the bias from repeated observations, we used the Proximity Index (PP), created through of geographic information for each visit to the level of the patient's neighbourhood. We used Generalized Additive Models for Location, Scale, and Shape (GAMLSS) with double Poisson distribution.

### Findings

We identified 6,802 records of mental and behavioural disorders associated with the puerperium diagnoses. Among them, 47.6% of the outpatient records were for diagnosis of ICD F53.1, and 32.09% for ICD-10 F53.0, which correspond to severe and mild mental disorders associated with the puerperium, respectively. Diagnosis for ICD-10 F53.0 was higher between the ages of 26 and 30 (10%), while diagnosis for ICD F53.1 was higher between the ages of 31 and 35 (12.7%). For each increment in the maternal age unit and CAPS coverage percentage, there is an increase of 1.01 ( $p < 0.001$ ) in the occurrence of postpartum psychiatric disorders.

### Conclusions

Our results showed that increases in maternal age and municipal CAPS coverage heightened the risk of postpartum psychiatric disorders. With regards to severity, we found that diagnosis for ICD F53.0 (mild mental and behavioural disorders associated with the puerperium) was higher among women aged between 26 and 30, while diagnosis for ICD F53.1 (severe mental and behavioural disorders associated with the puerperium) was higher among women aged between 31 and 35. Our findings support the need to improve knowledge of maternal mental health and to integrate routine screening into postnatal care settings, for the early identification of women who are at risk, and to apply timely preventive and therapeutic approaches.

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