

# Maternal Fear of COVID-19 and prevalence of postnatal depression symptoms: Risk and protective factors

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March 30, 2022

## Abstract

**Objective:** To evaluate the relations between Fear of COVID-19 and postpartum depression (PPD) symptoms. **Design:** A multicenter prospective observational study. **Setting and Population:** A cohort of women who delivered during COVID-19 pandemic between 03-05/2020. **Methods:** Participants were virtually approached after delivery and asked to complete an online questionnaire. Data was verified with each center's perinatal database. The validated Fear of COVID-19 Scale was in use. PPD was evaluated using the EPDS questionnaire as a categorical ([?]10) and as a continuous scale. Pre-existing maternal disability was defined as any prior physiological/psychological chronic health condition. Stress-contributing complications during pregnancy or at birth included pregnancy and labor related complications. Regression analysis and ROC statistics were utilized to evaluate associations and control for confounders. **Main Outcome Measure:** PPD symptoms. **Results:** Overall, 421 women completed the questionnaires. Of them, 99(23.5%) had a high EPDS score. Fear of COVID-19 was positively correlated with PPD symptoms ( $r=0.35, p=0.000$ ), ROC-AUC 0.67, 95%CI 0.61-0.74. Following adjustment to confounders (maternal age, nulliparity, ethnicity, marital status, financial difficulties, maternal disability, accessibility to medical services, and stress-contributing complications during pregnancy), the most important factor that correlated with depression was maternal disability (aOR3, 95%CI 1.3-6.9) followed by Fear of COVID-19 (aOR1.1, 95%CI 1.05-1.15). High accessibility to medical services (aOR0.59, 95% CI 0.45-0.77) and stress-contributing complications during pregnancy (aOR0.2, 95% CI 0.11-0.82) were both protective for PPD symptoms. **Conclusions:** During the COVID-19 pandemic, maternal disability and Fear of COVID-19 are positively associated with a high EPDS score. High medical accessibility was found as a protective factor for PPD.

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