

Maternal Mental Health: Beyond the Postpartum Period

Pregnancy and Birth Complications and Long-term Maternal Mental Health: A Systematic Review and Meta-analysis

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Summary: Globally, It is well-known that pregnancy and birth have a significant impact on women's mental health. Most research in this area focuses on the immediate postpartum mental illness. There is limited information on their impact beyond the postpartum period. We provide findings from a systematic review and meta-analysis that examined the association between pregnancy and birth complications and long-term maternal mental health.

Introduction

- Pregnancy and birth complications are a serious issue that affects 15%–40% of pregnancies globally (1). There is evidence that these complications continue to impact maternal and child health after childbirth (2). Several studies have explored mental and psychological problems following pregnancy and birth complications(3). These studies have focused on maternal postpartum depression, anxiety disorders, and stress.

What do we know?

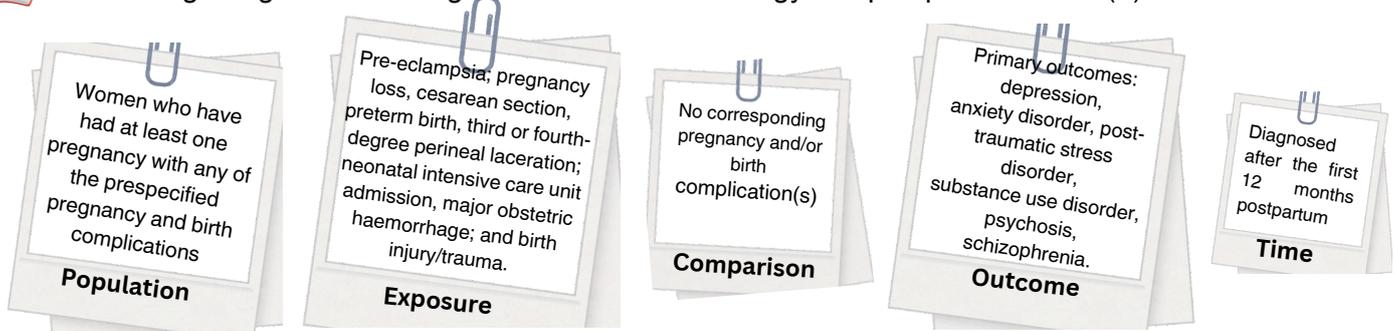
- We recognise that mental health disorders in women are more common during pregnancy and birth, however, there is limited knowledge about their impact after the first few months following birth.
- Potential reasons for the development of mental health disorders beyond the typical postpartum period are complex. They may include a history of mental illness, intimate partner violence (IPV), increased physical discomfort from medical intervention, physical life adjustments, and difficult birth experiences (4,5).

Why did we carry out this review?

- The issues that negatively affect women's mental health in the medium to long term following pregnancy and childbirth are rarely recognized or given priority.
- The long-term mental health impact of complications in pregnancy has not been systematically examined. Also, there is significantly less research on long-term maternal mental health outcomes.

What did we do?

- We began by conducting a systematic literature search of five electronic databases from inception through August 2022 using a detailed search strategy and prespecified PICO(T) criteria.



- Two reviewers extracted data and appraised the study's quality independently.
- We analysed the extracted data using random-effects meta-analyses to calculate pooled estimates.

What did we find?

- We found 33 studies published from 1996 to 2022 with 3,973,631 participants eligible for inclusion.
- The sample size ranged from 1,381,300 in a population-based survey to 46 in a single-center hospital-based study.
- Ten studies focused on preterm birth, seven studies focused on termination of pregnancy, three studies focused on miscarriage, three studies focused on pre-eclampsia, three studies focused on stillbirth, three studies focused on CS, and four studies reported results for both miscarriage and termination of pregnancy.
- The most frequently reported mental disorders were depression and anxiety disorders (n = 29, 87.8%), and the studies had an average length of follow-up of 72 months.

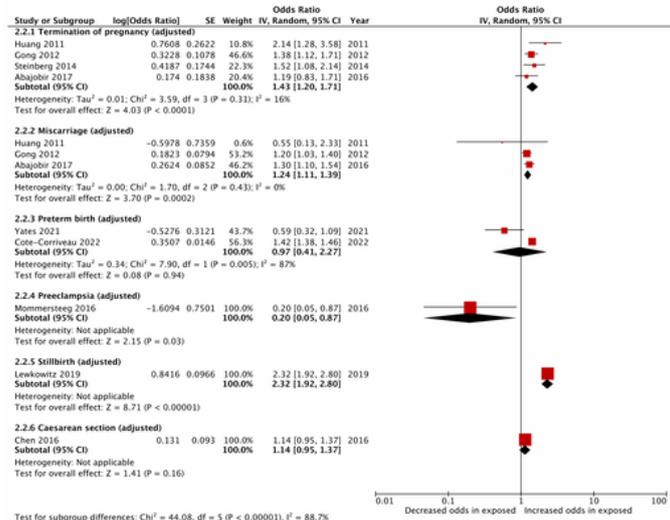


Fig 1: Forest plot for studies of the association of pregnancy and birth complications and depression

Key findings

- Termination of pregnancy increased the odds of experiencing long-term depression (adjusted OR 1.49, 95% CI 1.20–1.83), and anxiety disorders (adjusted OR 1.43, 95% CI 1.20–1.71).
- Experiencing a miscarriage may be associated with depression (adjusted OR 1.97, 95% CI 1.38–2.82) and anxiety disorders (adjusted OR 1.24, 95% CI 1.11–1.39).
- Having a preterm birth may be associated with depression (adjusted OR 1.37, 95% CI 1.32–1.42), and post-traumatic stress disorders (adjusted OR 1.75, 95% CI 0.52–5.89)
- When we compared women who had early pregnancy loss vs second-trimester loss, the results remained the same.

Women who had a termination of pregnancy, miscarriage, stillbirth, pre-eclampsia and preterm birth are more likely to experience long-term depression, anxiety disorder and PTSD, compared with women who did not have complications in pregnancy and birth.

Recommendations

- **RESEARCH:** There remains limited evidence on the links between pregnancy and birth complications and maternal mental health. Future studies to understand the underlying mechanisms driving these associations are needed.
- **PRACTICE:** Clinicians need to consider integrated care for better postpartum support, and tailor services for women at risk of long-term mental health disorders.

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Scan the QR code to read our published study: Bodunde E, Buckley D, O'Neill E, Al Khalaf S, Maher GM, O'Connor K, et al. Pregnancy and birth complications and long-term maternal mental health outcomes: A systematic review and meta-analysis. *BJOG*. 2024;00:1–12. <https://doi.org/10.1111/1471-0528.17889>



EB is a HRB- Funded SPHeRE PhD Researcher

Acknowledgements

This research was funded by the Health Research Board (SPHeRE-2018-1). The funding from the Health Research Board supports excellent research that improves people's health, patient care, and health service delivery. Article open access funding provided by IReL.

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