Perinatal Mental Health Problems and Infant Stress

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Research Dissertation 7PAGRRES

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Background

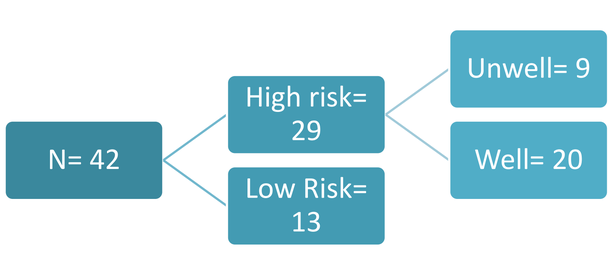
- Puerperal psychosis (PP) is a severe mental health illness that affects between 0.1% and 0.2% of women after delivery. Women with a personal or family history of bipolar disorder or previous PP are at greater risk[1].
- There are no studies on how cortisol reactivity varies between infants born to mothers at risk of developing PP and mothers with no such risk.

Aims

To investigate cortisol reactivity in infants born to mothers:
- At high and low risk of developing PP.
- At high risk of developing PP who remained well or became unwell.

Methodology

Design: Longitudinal case-control study.
Participants: Infants (25 males, 17 females) born to mothers at high or low risk of developing PP, and further subdivided as follows:



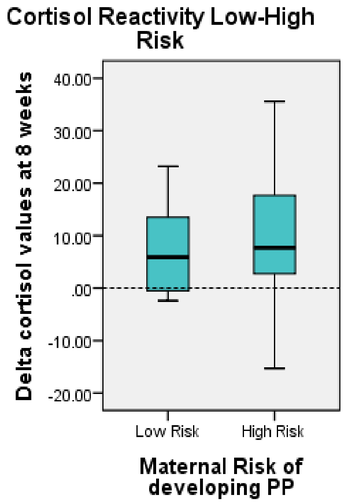
Unwell: Infants born to mothers who developed symptoms between birth and 4 weeks.
Well: Infants born to mothers who developed no symptoms between birth and 4 weeks.

Measures
- Structured Clinical Interview for DSM-IV Axis I Disorders (SCID-IV).
- Infant reactivity to stress (difference in cortisol levels immediately before and 20 minutes after a routine immunisations - a known stressor).

Antenatal	4 Weeks	8 Weeks (Mdn= 8, Range= 11)
• SCID-IV, Axis I with mother.	• SCID-IV, Axis I consensus.	• Infant saliva collection. • SCID-IV, Axis I with mother

Results

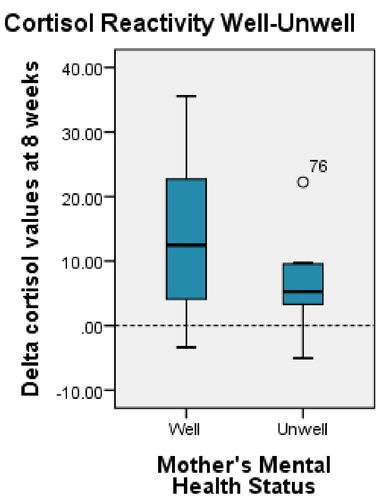
Fig. 1



There was no significant difference in cortisol reactivity between infants born to mothers at high risk (Mdn= 7.88, IQR= 16.94) and infants born to mothers at low risk of developing PP (Mdn= 5.92, IQR= 16.10) (Fig 1).

Mann-Whitney (M=7.67, U=158, p=0.407).

Fig. 2



There was no significant difference in cortisol reactivity between infants born to mothers who became unwell (Mdn= 5.26, IQR= 7.35) and infants born to mothers who remained well (Mdn= 12.49, IQR= 19.45) in the high risk group (Fig 2).

Mann-Whitney (M=7.88, U=57, p=0.120).

Discussion

Interpretation:
- Results suggest that infant cortisol reactivity may not be affected by the mother's risk of developing PP, nor by the mother's mental health status in the infant's first 8 weeks of life.

Clinical Implications:
- Infant HPA axis may not be affected in this population in the short term, unlike in other psychiatric conditions like depression. If replicated, these findings may provide reassurance to this population, and influence clinical judgement towards intervention timing and patient prioritising.

Strengths
- This is the first study to investigate cortisol reactivity in children of women at high risk of developing PP.

Limitations
- The sample size was not large enough to control for potential confounding factors.

Future Directions
- These are preliminary results from a larger sample (n=84) that will include evaluation at another time-point (12 months).
- Future research should replicate this findings in larger samples and include other psychological or biological variables.

Abbreviation: Psychiatry Research And Motherhood- Psychosis (PRAM-P) Project. **Acknowledgement:** Study funded by the Medical Research Foundation
Reference: 1) Monzon et al. (2014). Postpartum Psychosis: Updates and Clinical Issues. *Physicians Practice*, Volume 31, Issue 1. https://pdfs.semanticscholar.org/650e/9eabaae334a72a524b13792e12a8ffb3e106.pdf.