

How can we prevent post traumatic stress (PTSD) in the aftermath of birth trauma?

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Introduction

- Prevalence rates for Post-Traumatic Stress Disorder (PTSD) range from 3.1 to 15.7% of post-partum women [1]
- 1 in 10 women experience PTSD at 4-6 weeks postpartum
- Other women report symptoms of PTSD, including
 - re-experiencing,
 - avoidance,
 - emotional numbing,
 - hyper arousal
 - negative changes in thinking and mood in the immediate period following childbirth, but do not qualify for the disorder itself.
- Symptoms impact upon women's quality of life, physical health, personal relationships and the infants physical, behavioural, social and emotional development [2,3]

Methods

- A formal and robust review of the literature was conducted.
- A total of nine electronic databases were searched.
- Random effects model was used for comparisons in meta-analysis, investigation of heterogeneity was conducted by type of intervention.
- Outcomes were evaluated by Grading of Recommendation, Assessment, Development, and Evaluation' (GRADE) approach.

Key Findings

Eleven studies were identified that evaluated the effectiveness of a range of early psychological interventions. Midwifery or clinician led early psychological interventions administered within 72 hours following traumatic childbirth are more effective than usual care in reducing traumatic stress symptoms in women following traumatic birth.:
4-6 weeks (SMD -0.58, 95% CI -0.91, -0.26) and
12 weeks (SMD -1.08 95% CI 1.67, -0.49)

Systematic Review & Meta-Analysis

Research question

What are the effects of early psychological interventions delivered during the perinatal period on post-traumatic stress disorder and post-traumatic stress symptoms in post-partum women following a traumatic birth?

Objectives

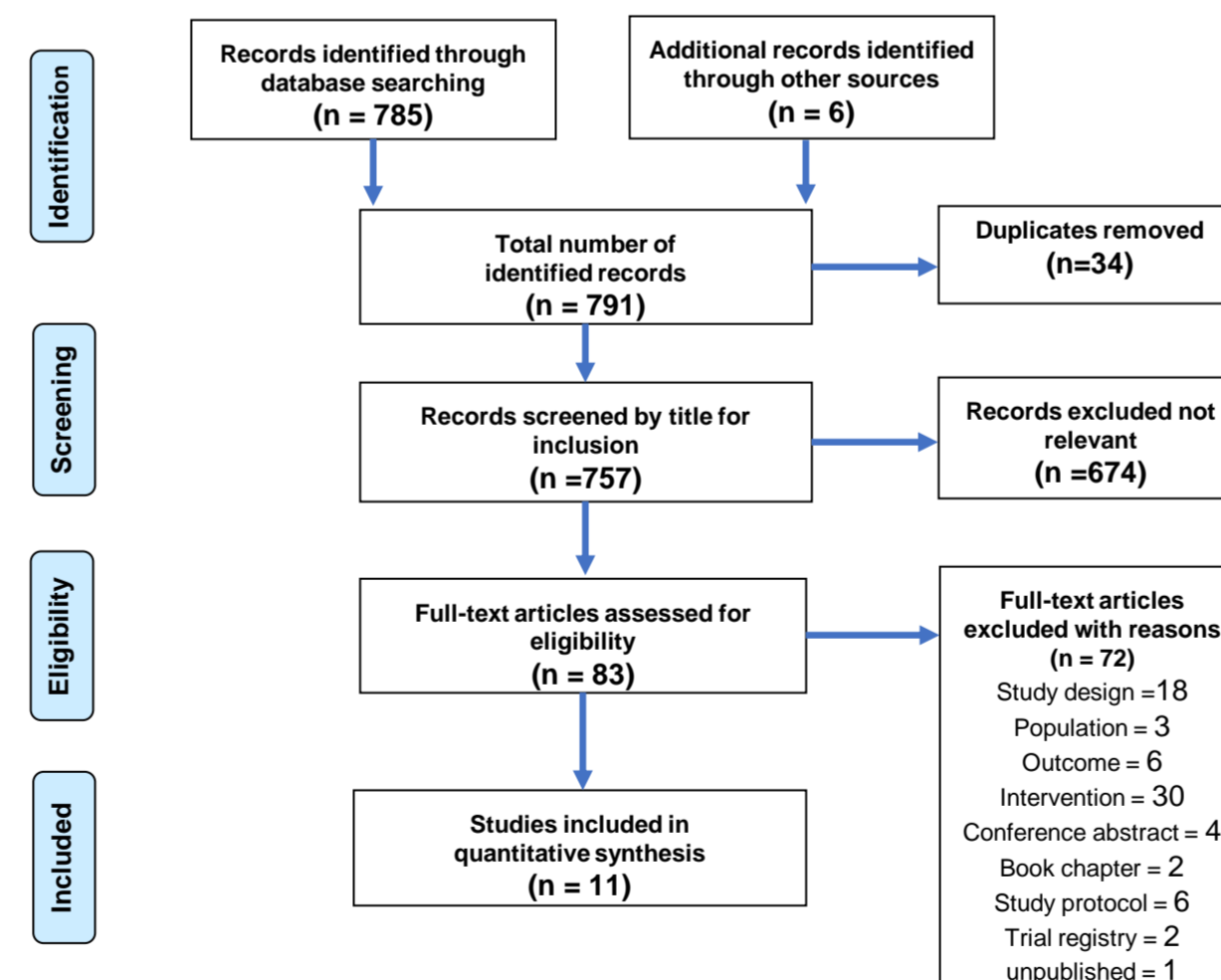
- Estimate the effect of early interventions on PTSD and post-traumatic stress symptoms in women following a traumatic birth.
- Estimate the effect of intervention type.

The review was reported on in accordance with Prisma guidelines and focused on the **PICOS framework**

Population	Women in the perinatal period
Intervention and comparison	Any psychological intervention compared with usual care
Outcome	Post traumatic stress disorder and post-traumatic stress symptoms
Study Design	Randomised controlled trial or pilot study

Results

PRISMA flow diagram



A total of 11 studies were found to meet the eligibility criteria with a total of 1,875 participant across studies. Risk of bias was assessed in accordance with criteria outlined in Cochrane Handbook for Systematic Reviews of Interventions.

Conclusion

There is firm evidence in favour of immediate response early psychological interventions in reducing symptoms of PTSD in women on a case by case basis. Further long-term studies of high methodological quality are required before recommendation can be made to routine clinical practice.

References

1. Grekin, R., & O'Hara, M. W. (2014). Prevalence and risk factors of postpartum posttraumatic stress disorder: a meta-analysis. *Clinical psychology review*, 34(5), 389-401.
2. Fenech, G. and Thomson, G. (2014) Tormented by ghosts from their past': a meta-synthesis to explore the psychosocial implications of a traumatic birth on maternal well-being. *Midwifery*, 30(2), 185-193.
3. Yehuda R, Engel SM, Brand SR, Seckl J, Marcus SM, Berkowitz GS. Transgenerational effects of posttraumatic stress disorder in babies of mothers exposed to the World Trade Center attacks during pregnancy. *The Journal of Clinical Endocrinology & Metabolism*. 2005 Jul 1;90(7):4115-8.
4. Miller, PGT., Sinclair, M., Gillen, P., Miller, P.W., McCullough, J., Farrell, D., Slater, P., Shapiro, E., Klaus, P. (2021) Early psychological interventions for prevention and treatment of post-traumatic stress disorder (PTSD) and post-traumatic stress symptoms in post-partum women: a systematic review and meta-analysis. (in press). **This study is in part fulfilment of PhD. Scholarship awarded to P.G.T. Miller by the Department of Economy (DfE) Northern Ireland. PROSPERO registration number CRD42020202576**