Identifying prevalence of post-traumatic stress disorder symptoms in pregnant women after a previous emergency caesarean-section

Eliza Petering[1,2*], Nicole Milenkovski[1,2*], Stella May Gwini[1,2] & Marilla L Druitt[1,2]

[1]Barwon Health, Geelong, VIC [2.] Deakin University, Waurn Ponds, VIC

Introduction

There are significant rates of psychological distress following an emergency caesarean-section (EmCS), during which women can perceive a risk to their own or their baby's life. When perceived as a traumatic event, symptoms of post-traumatic stress disorder (PTSD) can manifest and continue to cause morbidity.

The mean prevalence of PTSD in prenatal women is 3.3%, and 4.0% in postpartum women.[1] Risk factors include a history of sexual assault, co-morbid depression, severe pregnancy complications, instrumental vaginal birth or an EmCS.[1-3] A forthcoming birth has been shown to be a trigger for women to re-experience symptoms of PTSD.[4]

Methods

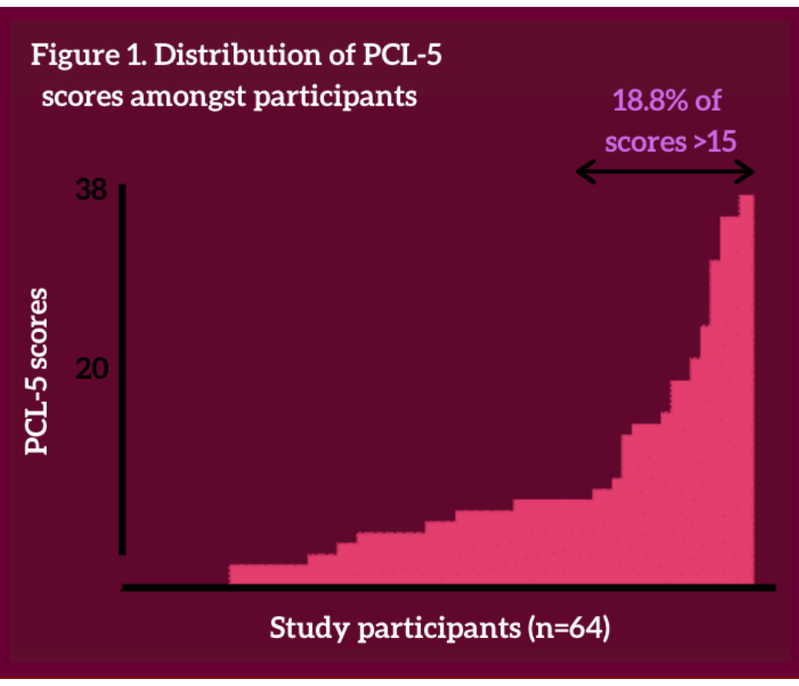
Recruitment: Participants were recruited over a three month period from those attending the vaginal birth after caesarean (VBAC) clinic at University Hospital Geelong, Barwon Health.

Measure: The PTSD Checklist for DSM-5 (PCL-5) assessed the prevalence of PTSD symptoms in 64 pregnant women who had experienced an EmCS. A 10 question survey determined demographic data and medical history to ascertain potential risk factors.

Analysis: The relationship between symptom prevalence and demographic data was assessed using linear regression. Significance was determined using Wilcoxon rank sum test.

This study was undertaken with approval from the Research, Ethics, Governance and Integrity Unit at Barwon Health, Geelong.

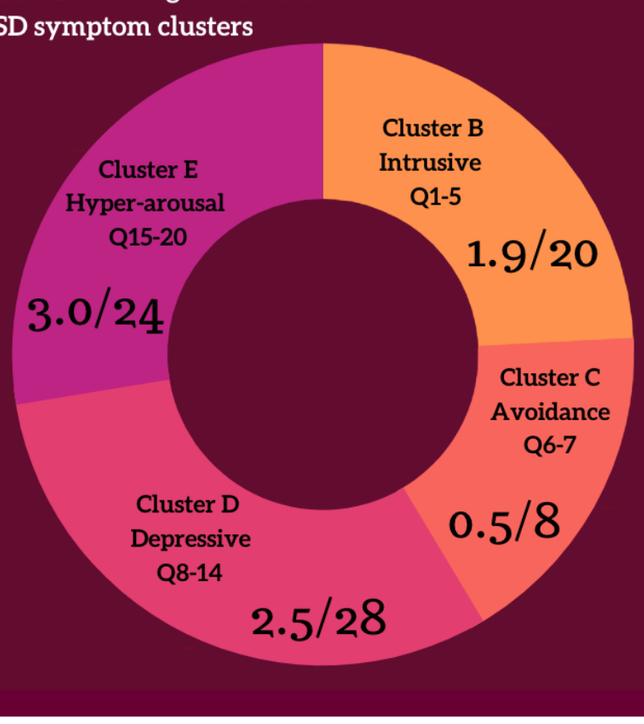
Figure 1. Distribution of PCL-5 scores amongst participants



Aim: To characterise the prevalence of PTSD symptoms and associated risk factors among pregnant women who have had previous emergency caesarean section (EmCS).

Participant Demographics	
Total sample size	64 women
Age: mean	32.1 years
Gestation: median	22/40
Gestation ≥ 30/40: n (%)	23 (35.9)
Gravidity: n (%) G2 G3 G4	 35 (54.7) 18 (28.1) 11 (17.2)
Overseas born: n (%)	13 (20.3)

Figure 2. PCL-5 average scores for PTSD symptom clusters



Results

- 3 of 64 women (4.7%) met the PCL-5 criteria for a provisional diagnosis of PTSD with overall scores greater or equal to 33
- 12 of 64 women (18.8%) had PCL-5 scores greater or equal to 15
- Women most frequently reported Cluster D symptoms which assessed negative thoughts, beliefs and moods related to the traumatic event (Figure 2)
- Women who reported a history of sexual assault had significantly higher PCL-5 scores (Figure 3)
- Women with past diagnoses of mental illness and those born outside Australia had higher PCL-5 scores

Discussion

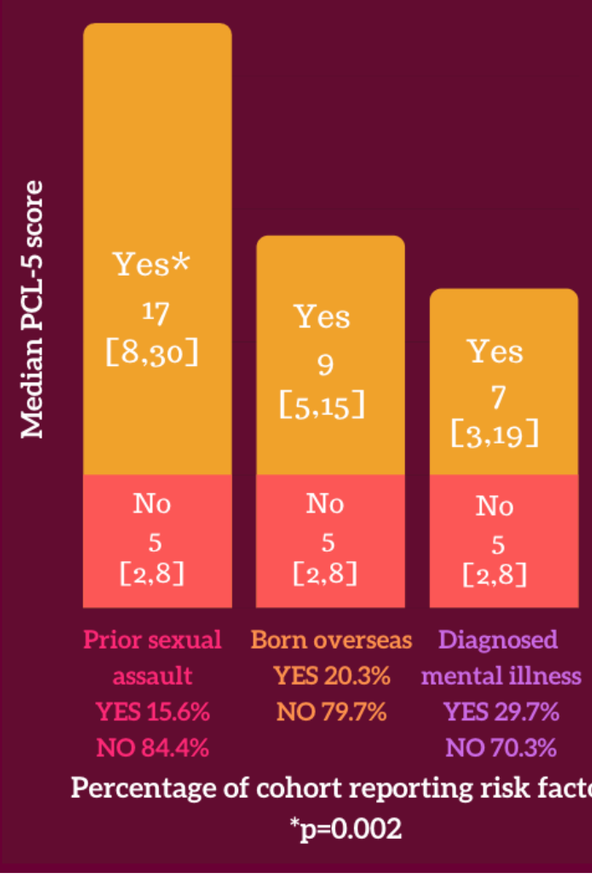
The results of this study are in alignment with current literature surrounding prevalence of PTSD symptoms and associated risk factors.

The prevalence of PTSD as a provisional diagnosis in this cohort was similar to other studies despite a difference in the timing of screening. A high number of women reported trauma symptoms at a subclinical level, and women with a history of sexual assault are at high risk of experiencing these symptoms.

PCL-5 may be a useful tool for screening high-risk women alongside existing mental health screening tools.

This study prompts further research into primary prevention and management of PTSD and trauma symptoms in the post-partum period – including expressive writing and trauma based cognitive behavioural therapy.[5,6]

Figure 3. Median PCL-5 scores pertaining to risk factors [Interquartile range: 25th and 75th percentiles]



Percentage of cohort reporting risk factors

*p=0.002

Conclusion

This study highlights the prevalence of PTSD symptoms and risk factors in pregnant women post EmCS. ***Start*** screening women alongside post-natal depression screening and consider high risk groups. A focus on primary prevention and strategies to support at-risk women should be considered in pregnancy care.

References

1. Yildiz PD, Ayers S, Phillips L. The prevalence of posttraumatic stress disorder in pregnancy and after birth: A systematic review and meta-analysis. Journal of Affective Disorders.
2. Ryding EL, Wijma K, Wijma B. Psychological impact of emergency cesarean section in comparison with elective cesarean section, instrumental and normal vaginal delivery. Journal of psychosomatic obstetrics and gynaecology.
3. Grekin R, O'Hara MW. Prevalence and risk factors of postpartum posttraumatic stress disorder: A meta-analysis. Clinical Psychology Review
4. Soderquist J, Wijma K, Wijma B. Traumatic stress in late pregnancy. Journal of anxiety disorders.
5. Di Blasio P, Camisasca E, Caravita SC, Ionio C, Milani L, Valtolina GG. The effects of expressive writing on postpartum depression and posttraumatic stress symptoms. Psychological reports.
6. Jotzo M, Poets CF. Helping parents cope with the trauma of premature birth: an evaluation of a trauma-preventive psychological intervention. Pediatrics.

For further information please contact:
eliza.petering@barwonhealth.org.au or nicole.milenkovski@rmh.org.au