

Introduction

1. Postpartum PTSD is often under recognized and overshadowed by postpartum depression. Its prevalence ranges from 4.6 to 6.3% in the general postpartum population, rising to 16.8% in high-risk groups (Horsch et al., 2024; Dekel et al., 2017).
2. Preterm birth is a major risk factor for postpartum PTSD, with stressors like NICU admission, maternal-infant separation, and helplessness contributing to higher psychological distress (Misund et al., 2014; Barthel et al., 2021).
3. In Taiwan, the preterm birth rate was 10.88% in 2023 (Health Promotion Administration, MOHW). A local study reported a 25.5% PTSD prevalence among mothers of preterm infants (Chang et al., 2016), but updated data is lacking.

Objectives

1. To compare the prevalence and symptom severity of postpartum PTSD between mothers of preterm and full-term infants.
2. To examine associations between psychosocial/clinical factors and postpartum PTSD.

Methods

Participants: 438 mothers (gave birth within 3 years)

- Preterm (<37wks) = 245; Control (≥37wks) = 193

Measures

- City Birth Trauma Scale (CBTS)
- Edinburgh Postnatal Depression Scale (EPDS)
- Anxiety: State-Trait Anxiety Inventory (STAI)
- Adverse Childhood Experiences scale (ACE)
- Family Empowerment Scale (FES)

Statistical Analysis

- Independent *t* test, Pearson correlation, linear regression

Results

Table 1. Psychosocial Differences Between Groups

	Control (M ± SD) N=193	Preterm (M ± SD) N=245	<i>t</i>	<i>p</i>
EPDS (Depression)	9.05 (6.04)	10.89 (6.38)	3.09	.002**
STAI-State Anxiety	38.88 (11.97)	43.16 (13.31)	3.53	<.001***
STAI-Trait Anxiety	43.00 (9.27)	45.82 (10.72)	2.95	.003**
ACE	1.24 (1.59)	1.70 (1.94)	2.75	.006**
FES (Family Support)	3.67 (0.75)	3.49 (0.90)	2.16	.031*

Table 2. Correlations between PTSD and psychological variables (N = 438)

Variable	PTSD (CBTS total score)
EPDS (Depression)	.73***
STAI-State Anxiety	.65***
STAI-Trait Anxiety	.67**
ACE	.15***
FES (Family Support)	-.47***

Table 3. Simultaneously regression analysis predicting postpartum PTSD

Variable	<i>B</i>	<i>SE</i>	β	<i>t</i>	<i>p</i>
Dependent variable: CBTS total score					
Intercept	-2.95	4.31		-.68	.494
EPDS (postpartum depression)	1.19	.14	.52	8.74	<.001***
State anxiety	.04	.08	.04	.52	.602
Trait anxiety	.24	.10	.17	2.27	.024*
ACE score	.18	.26	.02	.07	.483
FES (family support)	-1.25	.68	-.07	-1.84	.066

R = .74, *adjusted R*² = .55, *F*(5, 432) = 106.8, *p* < .001

Results

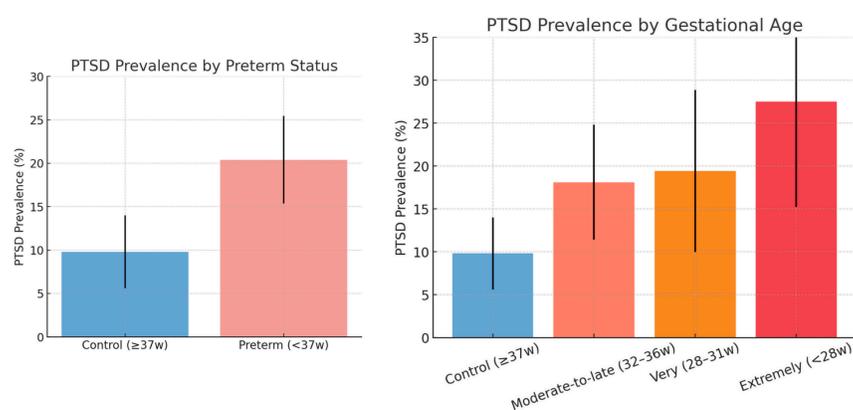


Fig 1. Percentage of mothers with PTSD scores above the CBTS cutoff

Conclusion

- Preterm birth increases the risk and severity of postpartum PTSD, especially in extremely preterm cases.
- Preterm mothers reported higher level of depression, anxiety, childhood adversity, and lower family support, highlighting a multifactorial burden of trauma.
- Postpartum depression was the strongest predictor, with trait anxiety also showing significant association.
- These findings emphasize the importance of early psychological screening and support, particularly for mothers of preterm infants.

Key references

- Horsch A. et al. (2024). Childbirth-related PTSD: risk factors & treatment. *Am J Obstet Gynecol*, 230(3S), S1116–S1127.
- Chang, H. P. et al. (2016). Factors associated with post-traumatic symptoms in mothers of preterm infants. *Arch Psychiatr Nurs*, 30(1), 96–101.
- Misund, A. R., Nerdrum, P., & Diseth, T. H. (2014). Mental health in women experiencing preterm birth. *BMC pregnancy and childbirth*, 14, 263.