

**Advocacy and Awareness of the Effects of Traumatic Childbirth on Maternal Mental Health
and Infant Attachment**

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Author Note

We have no known conflicts of interest to disclose.

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Abstract

Childbirth is a critical role transition in women's lives that can be a rewarding experience for personal and familial growth. The literature suggests that women who report distressing or traumatic childbirth experiences often endorse symptoms of posttraumatic stress disorder (PTSD) such as avoidance, emotional numbing and arousal, flashbacks, nightmares, maladaptive beliefs, dissociation, anger, and fear. Consequently, these experiences and childbirth associations affect their capacity to form a secure bond with their infant and can have adverse effects on child development and the overall family dynamic. Additionally, women who experience symptoms of posttraumatic stress disorder following traumatic or complicated childbirths frequently characterize their relationship with their infant more negatively, as well as demonstrate insecure or anxious mother-infant attachment styles. Comparing the quantitative and qualitative data that support these assertions is a paramount and necessary step in creating awareness, increasing advocacy, and developing timely interventions to target the symptoms of PTSD that have adverse effects on the development of mother-infant bonding and future relationships. This presentation seeks to compile data supporting these findings to further inform clinical decisions and guide timely symptom management, as well as patient and family psychoeducation. This will allow for proper identification of symptoms of posttraumatic stress disorder, education, and targeted interventions for mothers and babies, safeguarding the maternal-infant bond and family development.

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BACKGROUND

- Traumatic birth can include, fear, loss of control, stress, physical injuries and the death of the mother or infant. Causes can include:
 - Long and painful labor
 - Poor pain control
 - Emergency or medicated interventions
- Associated with postpartum posttraumatic stress disorder (PP-PTSD) and postpartum depression (PPD) symptoms that impair secure mother-infant attachment
- Interventions are needed to target PTSD symptoms to decrease the risk of adverse events and serious, persistent mental illness in mother and child.
- Clinicians play a crucial role in the identification and treatment of PTSD in the postpartum period

AIM/ OBJECTIVES

- Show patterns of traumatic childbirth experiences and how they affect mother-child bonding
- Highlight how proper tools, scales, and criteria categorizing symptoms into diagnoses measure symptom severity and screen women for PP-PTSD and PPD
- Analyze and highlight the variability and patterns of traumatic birth and postpartum experiences. When coupled with trauma, the impingement of PTSD symptoms into parenthood make coping for the entire family system harder
- Compare typically 'uncomplicated' birth experiences to emphasize how variable and overwhelming a woman's physical and emotional adjustments after childbirth can be, without the factor of trauma



METHODS

Databases searched: PubMed, Trip Medical Database, and Columbia University Libraries Catalog

Search terms: traumatic childbirth, postpartum posttraumatic stress disorder, maternal bonding, maternal attachment

Inclusion criteria: articles in English language peer-reviewed journals between 2014 and 2019, prospective cohort studies, retrospective cohort studies, case control studies, and case series

TABLE 1. SUMMARY OF STUDIES INCLUDED INTEGRATIVE REVIEW

Study	Sample Size	When Outcomes Were Measured	Outcomes Measured	Study Findings
Beck & Watson (2019)	N = 18 women Age: 27-59 years	2 weeks-24 years postpartum (M = 3.83 years)	1. Generalized account of what constituted a traumatic birth experience 2. Qualitative accounts of emotion, mother- infant bonding, cognitive feelings and physical limitations	Mothers shared similar accounts following traumatic birth experiences: feeling numb, detached, anger and distress in addition to limiting social encounters with others.
Dekel et al. (2018)	N = 685 women Age: >18 years (M=31)	1-6 months postpartum	1. PTSD using DSM V criteria and meeting moderate severity. Used to assess PP-PTSD and non-childbirth PTSD 2. Maternal attachment using the Maternal Attachment Inventory (MAI): a 26-item survey measuring a mother's feelings towards her infant. Used to assess pre-birth, birth and post-birth maternal attachment 3. Childbirth-related acute distress using Peritraumatic Distress Inventory (PDI): a 13-item survey assessing distress before and after birth. Used to assess PP-PTSD factors.	Women who experienced childbirth-related PTSD had lower maternal-infant attachment compared to women with uncomplicated childbirth and women who experienced past non-childbirth related PTSD.
Hairston et al. (2018)	N = 127 women Age: 22-41	Once between 4-12 weeks postpartum	1. The Adult Attachment Style Questionnaire 2. Postpartum Bonding Questionnaire (PBQ) 3. Modified Perinatal Posttraumatic Stress Disorder Questionnaire (MPSS-SR) 4. Edinburg Postnatal Depression Scale (EPDS): a 10- item Likert scale questionnaire.	Attachment styles were associated with bonding difficulties, anxious attachment was associated with greater infant focused anxiety, mediated by PPD. Finally, avoidant attachment style was associated with childbirth related PTSD. Considerations given to a mother's attachment style and how that may affect her own parental experience. Being aware of a mother's attachment style creates effective interventions.
Ionio & Blasio (2014)	N = 19 women Age: 24-40 years	1. Prenatal 7-month visit: MMP1-2 2. 2 days postpartum: PPQ 3. 2 months postpartum: PPQ 4. 3 months postpartum: The Smile Face Paradigm	1. The Minnesota Multiphasic Personality Inventory-2 (MMPI2) 2. Perinatal PTSD Questionnaire (PPQ): a 14-item Likert scale questionnaire. 3. The Smile Paradigm	The presence of PTSD symptoms at birth interferes with maternal-child relationships. Mothers who have symptoms of PTSD have difficulties engaging and empathizing with their children resulting in avoidant behavior in children.
Ponti et al. (2020)	N = 103 women Age: 26-46 years	1. 2 days postpartum: With PPQ 2. 3 months postpartum: With EPDS and MPAS	1. PPD symptoms using EPDS. 2. PTSD symptoms using PPQ 3. Early mother-child attachment using the Maternal Postnatal Attachment Scale (MPAS): a 19-item Likert scale questionnaire	A negative correlation was found between mother-child bonding, PTSD and PPD. Mothers who scored higher on the PPQ or lower on the MPAS indicated a lower mother-child bond. Mothers who scored higher on the PPQ also scored higher on the EPDS, indicating more PPD symptoms.

DISCUSSION

- Critical points of evaluating PTSD and depressive symptoms of traumatic birth begin immediately after birth, as evidenced by screening tools
- These periods are vital for timely diagnosis and interventions to ameliorate the effects of untreated PTSD
- Consider all modalities of therapeutic and pharmacologic intervention as well as infant and family incorporation of therapy
- Additional research consensus is needed regarding:
 - When clinicians should screen mothers for PP-PTSD
 - How often clinicians should formally assess mothers-child interactions using screening tools
 - Successful interventions and therapeutic modalities targeted for these populations

IMPLICATIONS FOR CLINICIANS

1) Educate and screen mothers for PP-PTSD symptoms following complicated births

- Perinatal PTSD Questionnaire (PPQ)
- Modified PTSD Symptom Scale Self Report (MPSS-SR)
- Peritraumatic Distress Inventory (PDI)
- PTSD Diagnostic Scale (PDS)

2) Educate and screen mothers for PPD symptoms within 12 months postpartum

- The Edinburgh Postnatal Depression Scale (EPDS)

3) Assess the interactions between mothers and infants during the postpartum period

- Maternal Postnatal Attachment Scale (MPAS)
- Postpartum Bonding Questionnaire (PBQ)
- Maternal Attachment Inventory (MAI)

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