Co-Morbid Ripple Effect: Systems Approach to Childbirth PTSD and Postpartum Depression



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Abstract & References



Background

- Self-harm causes 20% of U.S. maternal deaths (CDC, 2022).
- The co-occurrence of childbirth-related PTSD (CB PTSD) and postpartum depression (PPD) sharply increases suicide risk (Flory & Yehuda, 2015).
- Untreated perinatal mental health issues cost \$14 billion annually (Donegan et al., 2025).
- Clinical complexity of co-occurring PPD and CB PTSD is less understood and may need improved screening.
- Symptom overlap or unique biological factors may drive co-occurrence (Flory & Yehuda, 2015)

Purpose

This framework combines Beck's Ever-Widening Ripple Effect (Beck, 2015) with a multilevel nested systems approach to explain comorbid factors of postpartum depression and CB PTSD. It offers researchers a map for integrating complexity and multilevel concepts to improve hypothesis creation and contextualizing research.

Description

The model uses a stone disrupting water to illustrate how birth trauma affects individual functioning, leading to PTSD symptoms like low self-confidence, breastfeeding issues, diminished trust in healthcare, and strained relationships. A boulder represents postpartum depression interacting with trauma, altering its effects. Each mental health challenge adds complexity to these patterns, and the model also accounts for partner, infant, and provider impacts within the family unit.

Key: PTSD symptoms Depression Social norms symptom Infant mother dyad Postpartum Depression **PTSD Time** Family unit Relationship **Depression Time** Birth partner Individual level Trauma Stone/boulder Group level Health care provider Low self confidence Organizational Organization policy/ Leve Fear of childbirth Anniverse National/Societal National policy Leve Adapted incorporating multilevel framework from Humphrey & LeBreton (2019) &

Beck (2015) Middle Range Theory of Traumatic Childbirth: The Ever-Widening Ripple Effect

Logic

The model links mechanisms across individual, family, provider, organizational, and policy levels to guide research toward practical solutions. It highlights how social norms affect family interactions, provider behavior is shaped by organizations and policies and emphasizes tracking symptom changes over time.

Conclusion

The integrative model provides a framework to investigate the complexity trauma-driven morbidity. Identifying multilevel targets (dyad, provider, policy) allows focused organization, and for contextual research and offers a theory-driven that elevate how contextual forces scaffold moderate outcomes. This framework supports hypothesis generation, informs methodology and guides trauma-informed, family-centered, and agendas systems-aware research aid in supporting a mother's ability to cope disruptions in functional patterning.

Acknowledgement: ChatGPT version 5.0 was used for generating the background image; all text and shapes were conceptualized and added independently.