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The contribution of psychiatric illness on perinatal outcomes

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Lifetime traumatic events and the subsequent development of post-traumatic stress disorder (PTSD) have been associated with adverse effects on long-term mental and physical health outcomes.¹ In particular, histories of childhood abuse in women are shockingly common; the prevalence of childhood sexual abuse is 20–25%, and the literature clearly documents that childhood abuse and trauma cause persistent detrimental outcomes on health and functioning.² There are multiple abnormalities in hypothalamic–pituitary–adrenal axis stress reactivity and other neurobiological processes associated with histories of childhood abuse and PTSD.³ Moreover, the perinatal period is a highly vulnerable time for the development or exacerbation of psychiatric illness, including both depression and anxiety disorders (such as PTSD), and these disorders are often co-morbid.^{4,5} Notably, perinatal depression has long been linked to poor childbirth outcomes such as preterm delivery and low birthweight.⁶

Seng and colleagues⁷ discuss the possible role of PTSD in the aetiology of adverse perinatal outcomes.⁷ The primary aim of their study was to determine the extent to which prenatal PTSD was associated with lower birthweight and shorter gestation, and to explore the effects of childhood maltreatment as the antecedent trauma exposure. The authors make the case that PTSD, a debilitating form of an anxiety disorder triggered by personal experience of serious trauma, may be an additional or alternative explanation for adverse perinatal outcomes associated with low socio-economic status and African American ethnicity in women who experienced childhood abuse. Their prospective cohort study was of 839 nulliparous women who completed telephone interviews and were assigned to one of three groups: (1) PTSD-diagnosed ($n = 255$); (2) trauma-exposed, resilient ($n = 307$); and (3) non-exposed ($n = 277$). Infants of women with PTSD during pregnancy had a mean birthweight 283 g less than the infants of trauma-exposed, resilient women and 221 g less than those of non-exposed women ($F_{3,835} = 5.4$, $P = 0.001$). The readers should note that these differences in mean birthweight are similar to the effects of smoking, which is widely known to have detrimental consequences in pregnancy. It should be noted that childhood abuse trauma exposure (CATE) was not independently predictive, but that being in the PTSD-affected cohort was significantly predictive after adjusting for CATE.

These newly reported findings are both interesting and important, and the results will need to be replicated in future studies. The aetiology of preterm birth is extremely complex and multifactorial,^{8,9} and efforts to understand the underlying pathophysiology have been frustrating. Clearly, the intricate cascade of events that culminate in preterm birth probably

vary based on the individual woman's specific genotype, biomarker signature and phenotypic expression of the interaction between her genes and environmental exposures. Therefore, whether or not a diagnosis of PTSD, (more than race or ethnicity) accounts for some of the disparity in preterm birth outcomes, the results described in this manuscript highlight the importance of screening for adverse life experiences and psychiatric illness in women during pregnancy and postpartum. Maternal perinatal mental health has enormous consequences for the wellbeing of the mother, infant and family. Maternal psychiatric illness has also been associated with a variety of negative events including: (1) detrimental effects on maternal sensitivity in the postpartum period and impaired attachment;¹⁰ (2) impaired ability to breastfeed;¹¹ and (3) worse parenting skills and decreased healthy child development behaviours.¹² Consequently, screening for common psychiatric problems during routine prenatal care is certainly a logical and prudent recommendation.

Our own research has documented high rates of psychiatric co-morbidity during the perinatal period (including depression, PTSD, panic disorder and eating disorders) in women presenting for treatment at a Perinatal Psychiatry Clinic.¹³ Therefore, we fully agree with the authors' recommendations that assessment for trauma history and PTSD using brief measures validated for primary-care settings should be implemented in addition to the depression assessment that is becoming a standard of care. The high prevalence of childhood abuse and other trauma, as well as overall documented psychiatric co-morbidity in women of childbearing age, indicates that it is critical for women of reproductive age seeking perinatal care to receive comprehensive mental health evaluations for histories of trauma, PTSD, depression, substance dependence and eating disorders so that differentiated treatment targeting co-morbid psychopathology during pregnancy can be implemented.

The phenomenon of a PTSD-related reduction in birth-weight also points to possible interventions that should be tested in randomised trials to see if treatment of PTSD, or trauma, can overcome the negative birthweight consequences of exposure. Intervention options include various forms of counselling, pharmacotherapy and bibliotherapy (the selection of reading material that has relevance to the person's life situation, which can be complemented by discussion therapy). Positive treatment trials would point not only to a causal role for trauma and its sequelae on birth-weight reduction, but clinch the case for universal screening which we advocate.

In summary, although the underlying pathophysiology remains unclear, maternal psychiatric illness probably plays an important role in preterm birth. However, it must be emphasised that maternal psychiatric illness, aside from its effect on preterm birth, is also a critical component in the transmission of, and increased vulnerability to, psychopathology in their children. Therefore, the integration of appropriate screening and intervention for maternal psychiatric illness during routine prenatal care can have far-reaching implications across at least two generations.

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