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Time to Treat Problematic Sleep Disturbance in Perinatal Women

Katherine M. Sharkey

Sleep disturbance is an expected part of becoming a new mother. But for how long? At what severity? And at what cost to mother and infant? Evidence is mounting that disturbed sleep can precede the onset of a depressive episode in the general population (Ford & Kamerow, 1989; Perlis, Giles, Buysse, Tu, & Kupfer, 1997), as well as in perinatal women (Okun et al., 2011). Postpartum major depression (PPD) occurs in up to 13% of women and is the most common complication of childbirth (O'Hara & Swain, 1996), resulting in increased morbidity and mortality – including suicide – in mothers (Bonari et al., 2004), adverse child outcomes (Murray & Cooper, 1996), and high economic costs (Petrou, Cooper, Murray, & Davidson, 2002). Although PPD represents a major public health problem and despite indications that disturbed sleep likely plays a role in the development of PPD, postpartum sleep problems are considered normal in new mothers, rather than a treatable risk factor for poor maternal and child outcomes.

Swanson and colleagues have taken a first step towards addressing this gap between knowledge and practice (Swanson, Flynn, Adams-Mundy, Armitage, & Arnedt, 2013). As reported in this issue, they performed an open trial of cognitive-behavioral therapy for insomnia (CBT-I) in 12 postpartum women with comorbid PPD and insomnia. Across 5 sessions with new mothers, they adapted core CBT-I strategies of stimulus control and sleep restriction to accommodate infant care. In addition, they added components to address strategies to facilitate infant sleep and to enlist a parenting partners' assistance with caring for the baby and adhering to the CBT-I. Swanson et al.'s results showed statistically significant and clinically relevant improvements in their primary sleep outcome measures of sleep diary reported sleep efficiency, sleep latency, and total sleep time, *and* in primary measures of depressive symptoms using the Edinburgh Postnatal Depression Scale and the Quick Inventory of Depressive Symptoms-Self Report. Secondary outcome measures of insomnia severity and fatigue also improved after CBT-I.

A strength of the approach was the inclusion of a relatively heterogeneous sample of participants who reflect the patient population at which this intervention is aimed. In other words, they did not exclude comorbid conditions, medication use, and concomitant therapies. Routine treatment for co-occurring insomnia and postpartum depression with CBT-I will only take hold if its use can be generalized among the diverse population of women with PPD. Another asset was the use of multiple well-validated measures to assess sleep and mood. Certainly this pilot project paves the way for larger blinded trials that use objective measures of sleep and mood and include more un-partnered women and new mothers with lower educational attainment/socioeconomic status.

Additionally, Swenson and colleagues' work points to opportunities and challenges for future work in the area of treating perinatal sleep problems:

1. Defining the Problem: To move this work forward, our science must develop a more nuanced understanding of when and for whom postpartum sleep disturbance is problematic. Swanson and colleagues addressed this issue by targeting women with PPD who were also suffering with insomnia. Ideally, however, we need to identify pathologic postpartum sleep disruption before PPD develops. Indeed,

treating postpartum insomnia before other symptoms emerge may prevent postnatal psychopathology.

2. Understanding the Mechanism(s): Another key for scientists working in perinatal sleep and mood is to discover the effective components of CBT-I for perinatal insomnia. Does the CBT-I intervention work through improving infant sleep, e.g., (Stremler et al., 2006) or by normalizing circadian rhythms, e.g., (Sharkey, Pearlstein, & Carskadon, 2013)? Current guidelines recommend using subjective measures to diagnose and assess insomnia (as was done in this study), but objective measures may be needed to tease apart how components of CBT-I affect the observed improvements.

3. Assessing Long(er) Term Effects: Intellectual and financial support for interventions to improve new mothers' sleep will also depend on our ability to show that treating disturbed postpartum sleep results in better outcomes. Indeed, demonstrating that postpartum CBT-I can have positive intergenerational effects and result in subsequent cost-savings for maternal and child mental health will support its use.

4. Dissemination of Perinatal CBT-I: Widespread use of CBT-I for perinatal women with disturbed sleep will necessitate novel treatment delivery strategies. Research to support development of treatment manuals, training for non-BSM specialists, and/or group or online therapeutic techniques will allow the BSM field to benefit as many patients as possible.

In conclusion, the promising results of Swanson and colleagues should stimulate additional work in this area that will lead us towards a better understanding of the diagnosis and treatment of problematic sleep disturbance in perinatal women.

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