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Association of Early Introduction of Solids With Infant Sleep

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To the Editor:

We read with great interest the secondary analysis by Perkin et al¹ of sleep duration among infants randomized to receive early introduction to solid foods compared with infants randomized to standard introduction.¹ Infants in the early introduction group slept a mean of 7 minutes longer per night across the 3-year study period compared with infants in the standard introduction group. The group difference in sleep duration peaked at approximately 17 minutes at 6 months of age. As researchers studying sleep during pregnancy and early parenthood, we want to highlight additional areas of inquiry that we believe are critical for future research and clinical practice.

The group difference in infant sleep duration was statistically significant, but more research is needed to determine whether it is clinically meaningful for parents and infants. First, were improvements in infant sleep duration associated with improvements in parent sleep? Because the study was not designed to assess parents' sleep, clinicians should be cautioned against recommending early introduction of solid foods with the specific downstream goal of improving parent sleep. A study^{2,3} using wrist actigraphy to objectively measure sleep duration in new parents found that those who fed breastmilk to their 1-month-old and 3-month-old infants slept approximately 30 to 45 minutes longer than parents who fed formula to their infant.

Second, are the differences in infant sleep duration adequate enough to improve maternal-infant health? The authors cite previous research documenting the wide-ranging health benefits of 1-hour-longer sleep duration among school-age children, including lower body mass index and fasting glucose level. However, it is unclear how much additional sleep an infant or parent may need to experience health benefits. Relatedly, more research is needed to better describe any long-term health consequences of early introduction to solid foods.

Finally, researchers need to test interventions that provide parents and clinicians with feasible and efficacious alternatives for improving their infant's sleep at various times during the first few years of life. Importantly, evidence-based interventions for infant sleep exist.

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Conflict of Interest Disclosures:

For example, both infants and mothers randomized to an internet-delivered behavioral sleep intervention experienced short-term improvements on numerous sleep metrics,⁴ and benefits were maintained for infants at the 1-year follow-up.⁵

Although these findings seemingly confirm anecdotal evidence from parents, it is important to underscore that there is still much research to be done in this area before early introduction of solid foods is recommended as a solution for improving infant sleep.

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