Improvements in Infant Sleep Position: We Can Do Better!

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On the basis of the New Zealand Cot Study and European data, in 1992 the American Academy of Pediatrics (AAP) recommended that infants no longer sleep in the prone position.[1] By 1994, the National Institutes of Health, with other stakeholders, introduced the Back to Sleep campaign. Over the next 10 years, the sudden infant death syndrome (SIDS) rate in the United States fell 53%, correlating with an increase in exclusive supine sleep from <10% to 78%.[2] The AAP considers this 1 of the 7 great achievements in pediatric research in the last 40 years.[3]

But since 2002, the story has become more complicated. The AAP recommendations evolved to back is better than side and then back only in 2005. Other risk factors emerged, such as soft bedding and bed-sharing, and the education campaign became Safe to Sleep in 2012.[4] And although the incidence of SIDS continued to decline, other deaths (including accidental suffocation and strangulation in bed and undetermined deaths) began to increase, suggesting a possible "diagnostic coding shift."[5] These sleep-related deaths became known as sudden unexpected infant death (SUID). Unfortunately, the latest drop in SIDS has been offset by these other deaths, resulting in little change in the incidence of SUID in recent years.[6]

One of the most frustrating trends in infant sleep safety involves the lack of progress in increasing supine sleep rates. Once thought of as low-hanging fruit, overall supine sleep rates have stubbornly stagnated and have actually declined in the African American population, in which SUID rates remain significantly higher compared with white infants.[7] Qualitative research has shed light onto some of the barriers to supine sleep and other safe sleep recommendations, such as fear of aspiration and the perceived lack of infant comfort.[8,9]

A key source of information regarding the infant sleep environment has been the National Infant Sleep Position study; however, funding for this study ended in 2010. Further progress with safe sleep behaviors in the home requires current data on supine sleep to enhance our understanding of how families make these decisions. In this issue of *Pediatrics*, Colson et al[10] provide exactly the kind of information we need to guide providers and public health officials in their efforts to help families maintain the safest sleep environments for their infants.

In this study, the researchers provide a snapshot of infant sleep positioning in the United States by using a large sample of ~3300 mothers surveyed from 32 hospitals nationwide with an oversampling of African American and Hispanic mothers. Two critical components of this study were the comparison of intentions to actual practice and the evaluation of not just usual sleep positioning but all sleep positions used by the mother. The study reveals we have made little progress in terms of promoting the supine sleep position in the past 15 years (73% vs 77%).[11] More concerning is that only 49% of mothers exclusively placed their infants in the supine position because unaccustomed prone sleeping presents a significant increased risk of SIDS (adjusted odds

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All authors participated in the concept and design and drafting or revising of the manuscript and approved the manuscript as submitted.

DOI: https://doi.org/10.1542/peds.2017-2068

Accepted for publication Jun 29, 2017

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

COMPANION PAPER: A companion to this article can be found online at www.pediatrics.org/cgi/doi/10.1542/peds.2017-0596.

To cite: Goodstein MH and Ostfeld BM. Improvements in Infant Sleep Position: We Can Do Better!. *Pediatrics.* 2017;140(3):e20172068

ratio: 8.7–45.4).[7] A silver lining in these results is most mothers (57.6%) who intended to exclusively use the supine position maintain the correct position (49.2%). The discrepancy between intention to use the supine position and the actual practice is consistent with a study of video recordings of parents that showed infants starting in a safe sleep environment frequently end up in an unsafe environment later in the night.[12]

A worrisome finding by Colson et al[10] is that African American mothers and mothers with less than high school education continue to be more likely to use prone positioning, which is associated with a twofold increased risk of SIDS. Other researchers have demonstrated these same groups also are more likely to use soft bedding and bed-sharing and are less likely to breastfeed, all of which increase the risk of SIDS and partially explains the persistent discrepancy in the rates of SIDS in these populations.[7,13,14]

What guidance does this study provide for moving forward? Colson et al[10] found a lack of perceived control resulted in a 2.6-fold increased risk of sleeping prone. Mothers who want to practice safe sleep need to be empowered to insist that other caregivers in their lives support their parenting decisions. As suggested by the National Action Partnership to Promote Safe Sleep, we must extend our education of safe sleep to the influencers of parents, such as friends, child care providers, and family, especially grandmothers.

Finally, we must look at how we can help change personal attitudes and societal norms in favor of supine sleep, because these issues were found to be some of the strongest predictors of prone sleep position in this study. We must engage photographers, advertisers, and the media to promote safe sleep images. We must engage families through open, frank, nonjudgmental conversations about their sleep practices. Perhaps shifting the conversation from SIDS to suffocation may be beneficial because researchers for 1 study determined that when suffocation was the outcome risk, mothers had greater self-confidence that their actions could keep their infant safe.[15]

And we as health care providers need to provide clear and consistent messaging in both word and behavior. Studies continue to reveal health care providers disregarding the evidence-based medicine behind SUID risk factors and failing to model safe sleep in the hospital setting.[16,17] If we can't maintain a safe sleep environment in our birthing hospitals, what message are we sending to new parents?

ABBREVIATIONS

AAP: American Academy of Pediatrics
SIDS: sudden infant death syndrome
SUID: sudden unexpected infant death

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Pediatrics originally published online August 21, 2017;

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Pediatrics originally published online August 21, 2017;