

# Hazardous Bedding in Infants' Sleep Environment Is Still Common and a Cause for Concern

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Studies from the United States, Europe, New Zealand, and Australia, dating from 1993, found that soft bedding under and around a sleeping infant increases the risk of sudden infant death syndrome (SIDS), with adjusted odds ratios of 3.1 to 6.7.<sup>1-9</sup> The risk was so compelling that the American Academy of Pediatrics recommended in 1996 that infants sleep in environments with firm sleep surfaces and free of soft or loose bedding.<sup>10</sup> In addition, there have been growing concerns about soft and loose bedding contributing to an increased risk of accidental suffocation.<sup>11</sup>

Studies that measure trends in infant care practices are helpful in providing a window into our patients' behaviors and guiding us as we provide education on a public as well as individual level. However, although there have been reports published about trends with regard to other sleep practices (eg, sleep position and sleep location), the article in *Pediatrics* by Shapiro-Mendoza and colleagues<sup>12</sup> is the first to report trends in the use of potentially hazardous bedding in the infant sleep environment.

There were several disturbing findings described in the study. Although there have been declines in potentially hazardous bedding use since the 1990s, the rate of decline has been markedly slower since 2000. Approximately 50% of US parents, and two-thirds of black and Latino parents, continue to use thick blankets, cushions, pillows, and other potentially hazardous soft bedding, either under or covering the infant.

Of course, the next question for us to ask is, "Why?" Why do parents feel the need to use soft bedding? Qualitative studies<sup>13</sup> are helpful in this regard. The major reasons for using soft bedding are comfort/warmth and safety. Many parents worry that their infant will become cold or otherwise be uncomfortable if they do not use bedding. Parents often extrapolate from their own experience: "I wouldn't be comfortable if I didn't have a pillow, so my baby isn't, either." This is particularly true with placing bedding under the infant. Shapiro-Mendoza and colleagues<sup>12</sup> found no decline in the use of bedding under the infant since the survey started in 1993. In focus groups, we learned that parents often interpret the recommendation of a "firm sleep surface" as a taut surface. They worry that the surface is too hard and thus uncomfortable, so will use cushions and blankets to soften the surface. If they cover the bedding tightly, so that the covering sheet is taut, they believe that they are following the "firm sleep surface" recommendation, while also making it more comfortable.<sup>13</sup> In addition, parents may be incorrectly interpreting the recommendation against using thick blankets or comforters as meaning only over the infant, rather than under as well.

Ironically, parents believe that soft bedding makes the sleep area safer for their infant. Pillows, cushions, and blanket rolls are used to prevent infants from falling off of adult beds. Unfortunately, if infants roll into these objects, they may not be able to roll

back out and may accidentally suffocate.<sup>14</sup> And indeed, Shapiro-Mendoza and colleagues<sup>12</sup> found that potentially hazardous bedding use was most common among infants sleeping in adult beds (71.5%), and when sharing a sleep surface (70.0%).

The trends in potentially hazardous bedding usage reported by Shapiro-Mendoza and colleagues<sup>12</sup> mirror the trends in SIDS incidence in the United States (ie, the greatest declines were in the years immediately after the national Back to Sleep Campaign, which began in 1994).<sup>15</sup> The groups at highest risk of SIDS are also those that were found in this study to be more likely to be using potentially hazardous bedding in their infants' sleep environment: teenage, black, or less-educated mothers. This suggests that the earlier concerted, widespread education campaign was effective in influencing behaviors that led to reductions in SIDS rates; however, there continue to be pockets of the population that have been more resistant to the safe sleep message. Recent trends in potentially hazardous bedding use tell us that current efforts to launch the new Safe to Sleep Campaign are coming at an opportune time. This new campaign broadens the message emphasizing the need to place infants on the back ("Back to Sleep") to one that emphasizes the importance of looking at the entire sleep environment, which includes potentially hazardous bedding use. In addition to widespread public health campaigns, understanding trends in infant care practices and reasons underlying these trends are critical in helping clinicians counsel families. Counseling is likely more effective if we understand parental concerns and misgivings about infant health and safety recommendations, and can address these. For instance, we can suggest the use of sleeper clothing

instead of blankets to keep the infant warm. We can ensure that the parents' understanding of the word "firm" is the same as ours. We can emphasize that thick blankets and cushions should not be placed anywhere in the infant's sleep environment, neither over nor under the infant. Discussion of potentially hazardous bedding should be included whenever we talk to parents about the infant's sleep environment and safe sleep practices. Only then will we be able to achieve improvements in these worrisome trends and further reductions in the incidence of SIDS and suffocation deaths.

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