Bedsharing

Toward a More Holistic Approach in Research and Practice

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On October 10, 2005, the American Academy of Pediatrics Task Force on Sudden Infant Death Syndrome made the recommendation that babies should not sleep in the same bed as adults. The purpose of this article is to present a more holistic approach to bedsharing based on the current research. **KEY WORDS:** *culture*, *bedsharing*, *SIDS*, *sleep* *Holist Nurs Pract* 2007;21(1):19–25

On October 10, 2005, the American Academy of Pediatrics (AAP) Task Force on Sudden Infant Death Syndrome (SIDS) affirmed and updated its 2000 statement that babies be placed in a nonprone position to decrease the incidence of SIDS by adding that it no longer recognizes side sleeping as a reasonable alternative to sleeping fully supine. The same policy statement included other recommendations to further reduce the risk of SIDS in the general population. One such recommendation is that babies should not sleep in the same bed as adults, but in "a separate but proximate sleeping environment."

> . . .the task force concludes that the evidence is growing that bedsharing, as practiced in the United States and other Western countries, is more hazardous than the infant sleeping on a separate sleep surface and, therefore, recommends that infants not bed share during sleep.[1(p1252)]

The purpose of this article is to analyze the evidence for such a recommendation. The analysis looks at the evidence from 3 perspectives:

1. The physiological impact of bedsharing on the infant.
2. The psychosocial impact of bedsharing on the infant.
3. The impact of clinicians' practice and research assumptions concerning bedsharing.

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DEFINITION OF TERMS

Two terms found most often throughout the safe sleeping literature are bedsharing and co-sleeping. For the purposes of the present discussion, the authors have chosen to use the following differentiation in terms:

> Bedsharing refers to a sleeping arrangement in which the baby shares the same sleeping surface with another person. Co-sleeping refers to a sleeping arrangement in which an infant is within arm's reach of his or her mother, but not on the same sleeping surface.[2(p659)]

Using the above definitions, bedsharing has been deemed unsafe by the AAP and co-sleeping is being promoted because of its protective effects.

Another issue needing clarification before any discussion can occur on the subject of bedsharing is an understanding of what exactly constitutes SIDS. The 1989 National Institute of Child Health and Human Development definition is still generally accepted as the standard:

> The sudden death of an infant under 1 year of age, which remains unexplained after a thorough case investigation, including performance of a complete autopsy, examination of the death scene, and review of the clinical history.[3(p677)]

Lack of strict adherence to this definition makes a synthesis of studies correlating bedsharing and SIDS difficult to realize. For example, Drago and Dannenberg[4] reviewed case summaries from death reports of children younger than 13 months who died from suffocation or asphyxia between 1980 and 1997 for the US Consumer Product Safety Commission

Death Certificate File. They found that 180 infants died from being overlain on a sofa or bed, and concluded that "creating a safe sleep environment for infants could reduce suffocation deaths substantially."[4(p1020)] Deaths with a known cause, such as suffocation, should preclude their inclusion as a true case of SIDS. Moreover, the data collected were from short narrative summaries on death certificates that make it unclear whether or not all the infants found in adult beds were, in fact, bedsharing. Nevertheless, this study is important because it deals with safe sleep in infancy. Realizing this, the authors have chosen to focus on bedsharing in relation to safe sleep during the first year of life rather than specifically to SIDS to ensure a broader analysis of the pros and cons of bedsharing.

PHYSIOLOGICAL IMPACT OF BEDSHARING ON THE CHILD

Sleep apnea is the most common biologically based sleep disorder in young children.[5] A sequence of apnea, arousal, and return to sleep is a common recurring sleep pattern in infancy that has become the focus of study in the search for an explanation for SIDS. Research funded by the National Institute of Child Health and Human Development[6] has found that infants who died of SIDS have abnormalities in the brain region known to play a crucial role in regulating breathing, heart beat, body temperature, and arousal.

Interestingly, research from animal studies reveals that when mother and her young sleep together, the mother's body acts as a cue or trigger in regulating the newborn's body temperature, breathing, arousal patterns, motor behavior, autonomic nervous system function that includes activities as important as rhythmic functions of the heart, and hormone levels.[7] Physical anthropologists have determined that this may be precisely why hominids have slept with their young for 4 million years. Primate neurological systems are quite immature at birth and mature very slowly, making the young primate dependent on the parent for physiological regulation. In fact, "the human infant is the most immature infant primate of all, the slowest developing and the most reliant on its mother for the longest period of time for physiological regulation and support."[8(p138)]

Intrigued by the idea that sharing a sleeping area may be protective, McKenna et al began to study human mothers and infants sleeping together in a sleep laboratory setting "to document the unfolding sleep patterns of mothers and infants sleeping in physical contact."[9(p331)] Richard et al[10] discovered that bedsharing infants sleep in sync with their mothers, thereby arousing easily and more often than infants sleeping alone.

The fact is, however, that Western babies do not usually sleep with their mothers. Data from the National Infant Sleep Position Study determined that even though "between 1993 and 2000, the proportion of infants usually sharing an adult bed at night increased from 5.5% to 12.8%,"[11(p43)] the percentage remained very low overall.

The single most important factor known to reduce the chances of a newborn dying of SIDS is the sleeping position. The deadly practice of placing a baby prone to sleep became common in the United States in the middle of the last century after breast-feeding was replaced by bottle-feeding. Subsequently, the practice of placing the infant prone in a solitary sleeping environment evolved. This was a major change from the supine sleep position universally chosen by breast-feeding mothers who bed share with their infants, since it is virtually impossible for infants lying next to their mothers to breastfeed on their stomachs.[8] The prone sleeping environment has reversed itself in Western society since the 1992 AAP "Back to Sleep" campaign, even though the solitary sleeping environment has essentially remained the norm. However, with the subtle shift in the sleeping arrangements of families in the United States noted above, the AAP policy statement on bedsharing does speak to a growing number of parents who are choosing to sleep with their infants.

In addition to the prone sleep position, behaviors such as maternal smoking[12–17] and maternal alcohol and/or drug use[13,14] are being recognized as modifiable risk factors in the bedsharing research. James et al[17] conclude that it is the smoking, alcohol consumption, and illicit drugs that place the infant at risk, not the fact that the infant and parent are sharing a bed. Any characteristics or behaviors that impair the ability of a parent to arouse from sleep are risk factors. Extreme fatigue, illness in the parent, and obesity are other forms of parental arousal impairment that correlate with SIDS as bedsharing risk factors.[18]

Certain sleep surfaces are risky for safe sleep, but can be transformed into a safe sleeping area by making some simple modifications. Bedsharing should only occur on a safe bed. A safe bed is a firm surface with no pillows or loose bedding with which

the baby can become entangled. The baby should not bed share even on a firm mattress if it means the baby ends up sleeping near a wall, headboard, footboard, or side rails that could entrap him or her. The bed should not be near hazardous items such as curtains, blinds, heaters, and windows. Sleeping with a baby on a sofa or couch is definitely unsafe.

In addition to the modifiable risk factors, underlying disease in the infant further confounds the bedsharing data. Alaska has one of the highest rates of SIDS in the United States, but once the health of the infants under consideration is noted along with impairment of the parent, bedsharing fades as a risk factor:

> Of the 130 infants for whom the death certificate listed SIDS as a cause of death, 29 (22%) had 1 or more substantial pathologic abnormalities. Sixteen infants were born at <2500 g, 6 had pneumonia identified at autopsy, 3 had congenital heart disease identified at autopsy (1 infant each had an anomalous right coronary artery, ventricular septal defect, or pulmonary artery stenosis with right ventricular hypertrophy). . . .parental drug use was common, including cigarette smoking (61% of infants had a smoking parent), alcohol use (29%) and illicit substance use (15%); overall, 68% of infants had a parent with a documented history of any drug use. . .. Among Alaska Natives, 94% of SIDS deaths occurred in association with a documented record of parental drug use.[14(p924)]

Gessner et al conclude that SIDS deaths associated with parental bedsharing are all but nonexistent when other risk factors are absent.[14(p923)] Because of this, the Section of Maternal, Child and Family Health of the Alaska Division of Public Health adopted the message that infants should sleep in the supine position and either in an infant crib or with a nonsmoking, unimpaired caregiver on an adult nonwater mattress.

Validating James et al,[17] Hauck et al[15] found bedsharing is not a risk factor once all the infants who died on a couch were removed from the analysis. "In the final multivariate model, factors that remained significant independent risk factors were not using a pacifier, soft sleep surface, maternal smoking in pregnancy, prone sleep position, pillow use, and bed sharing in combinations other than with parents alone."[15(p1210)]

Studies that put forth statistics such as "the risk of suffocation was approximately 40 times higher for infants in adult beds compared with those in cribs"[19(p883)] exist, but they do not include data on caregiver smoking, alcohol or drug use, or establish preexisting disease in the infants or delineate sleep surfaces. It could well be that bedsharing would prove insignificant if the confounding variables were eliminated from these studies, as they have been in the studies mentioned previously.

PSYCHOSOCIAL IMPACT OF BEDSHARING ON THE INFANT

Those of the dominant culture in the United States value individualism and self-sufficiency.[20,21] Because of these cultural values, the custom of a lone infant in a crib of his or her own is considered correct practice. This practice supports the dominant culture practitioner's (and, most probably, the family's) belief that left to oneself, an infant learns the important tasks of self-regulation and control so necessary for these traits to develop. Any practice that is believed not to promote these characteristics in an infant may be seen as detrimental to the infant's mental health. "Catering" to a whimpering infant by bringing that infant into the parent's bed may be perceived as encouraging dependence, a negative trait in the independence belief system. Bringing that same healthcare advice into a community that values interdependence, however, may lead to noncompliance or rivalry within the family between the acculturated youth and the more traditional elders. Abbott quotes a local Appalachian writer who morally justified the practice of mother-child bedsharing by remarking, "How can you expect to hold on to them in later life if you begin their lives by pushing them away?"[22(p34)]

Because of the disparity of beliefs that bedsharing may have on the psychosocial development of the child, Okami et al[23] completed an 18-year longitudinal study of outcome correlates of parent-child bedsharing with 205 families in unconventional and conventional family lifestyles known as the UCLA Family Lifestyles sample. The bedsharing unconventional families professed an interrelated set of beliefs and practices that included de-emphasis on materialism, long breast-feeding periods, natural food and toys, and bedsharing: practices similar to preindustrial peoples. The nonbedsharing conventional families' value system included individualism, self-sufficiency, regulation, and self-control. Okami et al concluded that "there is at present no evidence linking [bedsharing], when engaged in responsibly, with any sort of problematic outcome."[23(p251)] The researchers warn against interpreting any one family practice as responsible for an outcome. "In all, it appears that long-term patterns in family life and peer

relationships, not particular family practices such as bedsharing, that were associated . . . with important outcomes in adolescence."[p251] Another study by Mosenkis involving 1400 subjects, the largest study to date looking at bedsharing on later life development, come to the some conclusion.[24]

THE IMPACT OF CLINICIANS' PRACTICE AND RESEARCH ASSUMPTIONS CONCERNING BEDSHARING

Research does not support a direct correlation between bedsharing and certain psychosocial characteristics in the developing infant. Therefore, healthcare workers may base their sleeping arrangement advice on personal assumptions about strategies to achieve the development of the most positive characteristics in infants. Personal bias, whether for or against bedsharing, may determine what the healthcare provider promotes, rather than what the research says is true. Clinicians must always be on guard for such personal bias. One way to do this is by performing a self-assessment of cultural values, attitudes, beliefs, and practices.[20,21]

In addition, clinicians may be formulating practice modalities concerning bedsharing based on their own experience with families in crisis. They hear all the stories of those whose infants are having sleep problems, but never hear from those who enjoy their alternative choices to the dominant solitary sleep norm. Moreover, the scientific literature makes it sound like there is one pattern of sleep that is acceptable for all, which is certainly not the case taking into consideration all the various lifestyles and individual temperaments of the great melting pot known as the United States.

Shweder et al do not believe that either side in the bedsharing debate has a secure moral foundation from which to argue its position:

> Those who condemn and those who justify parent-child co-sleeping arrangements make many strong and limiting assumptions about moral goods. Yet rarely are those moral considerations informed by a systematic examination of the range of moral values that are exhibited in the sleeping practices of different cultures around the world. Rarely is the problem of who should sleep by who conceptualized as a problem in choosing between alternative, and perhaps conflicting, moral goods.[25(p30)]

A more inclusive array of choices may lead to changes in maternal-child sleep arrangements in America. That will be good if it also results in less distress for the postpartum family. Bedsharing may, for instance, be of interest to the typical parents of European ancestry (the dominant culture) who believe their infant should sleep through the night by 3 to 4 months of age. Research has shown that an infant sleeping close to his or her mother picks up her rhythms and sleeps more like an adult as a consequence,[9] thereby facilitating the self-regulation they so much want to develop in their infant.[5] In this way, the parent comes to understand that an interdependent practice like bedsharing may actually lay the groundwork for independence, a trait the family values.

Broadening the worldview on sleeping modalities not only gives parents more choices but may also prevent imposition of the dominant culture's value system on minority families. Progress in this area has been slow in forthcoming, at least in part, because of researcher bias.

Willinger et al found that it is more common for nonwhite infants to sleep with their parents than white infants (41.8% of blacks, 25.5% of Hispanics, 33% of Asians, and 12% of whites).[11(p44)] Based on the supposition that socioeconomic status, not ethnicity, drives the choice of sleeping arrangements of infants and children in nonwhite households, Vemulapalli et al provided cribs, the dominant culture's ideal sleeping arrangement, for use by inner-city African American mothers to decrease the likelihood of bedsharing among the mothers because "[Their] results in earlier studies suggested that lack of access to safe cribs, rather than cultural preference, was the primary reason for bed sharing among a group of young African American mothers."[26(p288)] When they interviewed by telephone 23 of the 53 (43%) inner-city mothers in poverty to whom they had delivered a crib for use, they found that ". . .the cribs were accepted with much enthusiasm."[26(p289)]

Others, however, found crowding and resource limitations to be insufficient explanations for bedsharing, suggesting potential cultural differences in sleep practices.[22,27] Willinger et al[11] state that even when their data were adjusted for sociodemographic and infant characteristics, the probability that black, Latino, and Asian infants were more likely to bed share than white infants remained. "While infants of young mothers and low income households were also

more likely to routinely bed share, the magnitude of the independent contribution of race or ethnicity was greater, suggesting a strong cultural influence on this practice."[11(p43)]

Reviewing the literature to formulate its national policy on bedsharing, the Canadian Pediatric Society found that "the factors that influence the sleeping arrangements of infants and children are a combination of parental values, socioeconomic factors and cultural diversity."[2(p659)] Because of this, they conclude that healthcare workers who recommend a sleep arrangement for a family that goes counter to any of the above factors may be fighting a losing battle.

IN SUMMARY

A critical review of the bedsharing literature demonstrates that bedsharing is not inherently unsafe. Rather, it is the characteristics and behaviors of the bed sharers, and deficiencies in the sleep surfaces, that make the practice risky. In the absence of these factors, bedsharing is physically safe for the healthy infant. First, as a matter of fact, bedsharing can be protective, as the parent's body confers protective cues to the infant to regulate the infant's immature physiological systems during sleep.

Second, there is no proof that bedsharing contributes positively or negatively to the psychosocial development of the child. It is the totality of the childrearing experience that molds character. Bedsharing takes on meaning within the culture of a society. This meaning is as diverse as the people groups who inhabit the earth.

Lastly, researcher and practitioner bias abound. Because assumptions may influence the interpretation of practice outcomes, clinicians and researchers in all healthcare settings must be vigilant about how their

TABLE 1. A safe sleep environment for infants: Guidelines for healthcare professionals

Bedsharing:

Some families wish to practice bedsharing based on their cultural beliefs, environmental situation, or other personal reasons. All families must be aware that there are risks involved with sleeping in the same bed with their infant.

- Adult beds are not designed to meet federal safety standards for infants.
- Babies have been suffocated by becoming trapped or wedged between the bed and the wall or bed frame, have been injured by rolling off the bed, or have been suffocated by bedding.
- Infants have died when an adult rolled onto and suffocated them.

Because of these concerns, the American Academy of Pediatrics and the Allegheny County Pediatric Periods of Risk Team recommend that infants not bed share during sleep. Bedsharing is especially risky and *must* be avoided at all times when a mother or any other person is

- extremely fatigued,
- obese,
- a smoker
- impaired by alcohol or drugs, legal or illegal.

Sleeping with a baby under these conditions is extremely dangerous and may lead to the baby's death.

If a mother decides to bed share despite the above warnings, offer this additional guidance:

- Use a crib or "sidecar" next to the mother's bed. A sidecar is a crib-like infant bed that attaches securely and safely next to the parent's bed; with this nighttime nurturing device, parents have their own sleeping space, baby has his or her own sleeping space, and baby and parents are in close touching and nursing distance to one another.
- Place infant back to crib after comforting or breast-feeding and/or when the parent is ready to sleep.
- Sleep with the baby on an extra firm mattress on the floor to minimize falls.
- Keep the firm mattress away from walls or hazardous items such as curtains, blinds, heaters, and windows.
- Avoid crevices between the mattress and wall.
- Avoid side rails, headboards, and footboards that have slats that could entrap the baby's head.
- Never let the baby share a bed with a sibling, baby sitter, or person other than parent.
- Reinforce the infant care practices and standards that are stated above under the heading "To Reduce the Risk of SIDS (Sudden Infant Death Syndrome) and Prevent Suffocation."*

*The full guidelines can be obtained on the Allegheny County Health Department Web site at http://www.achd.net/hvn/sleep.html. Permission to use granted by Allegheny County Perinatal Periods of Risk Team.

own values and preferences condition their responses and expectations.[28(p214)]

RESEARCH AND PRACTICE FROM A HOLISTIC PERSPECTIVE

There is evidence that bedsharing, when analyzed separately from the confounding variables that make the practice unsafe, is not hazardous to the physical and psychosocial well-being of the infant. Instead of insisting that there be no bedsharing, the clinician would do better to teach parents that bedsharing can be done if it is done safely, and then proceed to teach safe bedsharing to those who desire to do so.

On the other hand, research has irrefutably shown that certain variables combined with bedsharing have the potential to make bedsharing life-threatening. Bedsharing should be avoided at all times if the mother is extremely fatigued, obese, a smoker, or is impaired by alcohol or drugs, whether they be legal or illegal. In addition, infants should never bed share on a sofa, and, even if on a safe bed, they should not be with anyone other than a parent.

Because there are so many risks involved with bedsharing, the AAP released a recommendation that infants not bed share during sleep. The problem that such a recommendation brings is that clinicians will make their clients aware of the blanket recommendation and believe their job of informing young families has been done. In fact, as previously discussed, an increasing number of families are choosing to bed share based on their cultural beliefs, environmental situation, or other personal reasons. It is up to the clinician to do a thorough assessment to determine whether this is a family who will bed share in spite of the warnings, and subsequently provide additional guidance based on the research. Table 1 offers an example of guidelines developed by a team from the Allegheny County Department of Health in Pennsylvania as one way to deal with the issue of bedsharing in a holistic manner.[18]

Parents being able to choose a health practice congruent with their particular beliefs maximizes compliance. Counseling for safe bedsharing should not make the clinician nervous. There is research that demonstrates that bedsharing parents with none of the risk factors may be conferring a protective mechanism upon their newborn. Their adult rhythms help synchronize the newborn's regulating systems, resulting in fewer apneic episodes during those crucial early months when newborns may "forget" to breathe. Bedsharing also facilitates successful breast-feeding that reduces the risk for postnatal deaths overall. Such benefits should not be minimized when talking to parents about their bedsharing options.

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