

FIMR Position Paper on Bed Sharing

The Michigan FIMR network is comprised of approximately 25 individuals representing 10 counties in the state with active Fetal Infant Mortality Review programs. FIMR programs conduct comprehensive, de-identified case reviews of deaths of infants under one, for the purpose of better understanding the factors that contribute to infant death in a specific community. FIMR's exists to improve the systems of care, services, and resources available to women, infants, and families in our communities.

The incidence of infant deaths determined to be caused by, or related to overlay, positional asphyxia, accidental suffocation and the like has increased in recent years in Michigan. The number of SIDS deaths is steadily decreasing in the State of Michigan, but there has not been a significant drop in overall postneonatal deaths, suggesting a diagnostic shift. Our growing concern over the lack of consensus on the issue of Safe Sleep and what message to give families, prompts us to publish this opinion. We recognize the complexities facing providers as they take on the task of sorting through the conflicting recommendations that are emerging over bed sharing, safe sleep, breastfeeding and parenting practices. All of the participants in the Michigan FIMR network have one common goal: to improve pregnancy outcome and prevent infant morbidity and mortality.

There is increasing evidence to suggest that bed-sharing presents potentially fatal hazards to young babies and bed-sharing deaths represent a significant proportion of infant mortality in the United States (US).

Nakamura et al. (CPSC, 1999) described 515 deaths of children younger than two years who were sleeping in adult beds. Of these deaths, 121 were reported to be due to overlying of the child by a parent, other adult, or sibling, while 394 were due to entrapment in the bed structure. A criticism of this study has been that the relative risk for bed sharing is unknown because we have not researched the number of families actually practicing bed sharing. In an April 2001 presentation given at the National SIDS Alliance annual conference in Chicago, N.J. Sheers of the CPSC, working with Marian Willinger (epidemiologist from NICHD and member of AAP task force on Infant Sleep Position) presented the denominators and calculated rates. According to their study, the risk of infant death for an infant alone in a crib is 1.32 per 100,000, while the risk of death for an infant in an adult bed is 30.0 per 100,000, a 23-fold increase. We firmly believe that one infant death due to a completely preventable cause is one too many. A greater than 20 fold increase in the risk for death is simply too great to ignore.

Kemp, in his 2000 study published in *PEDIATRICS*, presents a retrospective analysis of infant deaths in Missouri and demonstrates that bed sharing poses a significant risk for infant death. Of the 119 infant deaths, 75.9% of the infants were found on a sleep surface not designed for infants, and a shared sleep surface was the site of death in 47.1%. Kemp's group (St. Louis) also found that the risk associated with bed sharing and use of non-standard bedding in part explains the disparity in SIDS death rates between African American and non-African American infants.

The Position Statement from AAP's recent Taskforce on Infant Sleep Position and Sudden Infant Death Syndrome clearly states that no epidemiological evidence exists that bed-sharing is protective against SIDS (AAP, 2000). In fact, recent literature shows the opposite. Thogmartin, Sieber & Pellan (2001) report that bed-sharing appears to increase the proportion of unexplained deaths, regardless of the position of the infant.

Unintentional suffocation to infants while bed sharing with adults was the fourth leading cause of all unintentional deaths to children under the age of 19 in 1999, following motor vehicle, fire, and drowning deaths (Michigan Child Death State Advisory Team's 2nd annual report, MPHI). Of 63 SIDS deaths analyzed by review teams, only eight (13%) of the babies were sleeping in cribs, alone, and on their backs.

The FIMR findings in Saginaw, Michigan (one of the most experienced FIMR's in the Country) have identified 22 infant deaths due to suffocation between 1993 and 1999. These deaths represent 13% of all infant mortality in the County, and 40% of post-neonatal deaths (deaths occurring after 28 days) Since this study, an additional 5 babies have died of asphyxia in this community, for an average of 2 – 3 deaths per year. While many risk factors appeared to be significant (alcohol, substance use, obesity, multiple people sharing the bed) this study concluded that enough evidence exists at the present time to act toward education and prevention. Given the inability of providers to predict future behavior, the prudent approach is to educate families about the dangers of bed sharing.

The Pontiac Fetal Infant Mortality Review (FIMR) team has been meeting for several months and reviewed 15 cases. Three of these cases have been caused by positional asphyxia and 2 other cases have some indication that bed sharing was associated with the infant death.

The Kalamazoo FIMR team has reviewed 95 cases to date, of which 35 (32%) were postneonatal deaths. Of the 35 postneonatal cases, 5 (14%) were SIDS and 6 (17%) were Mechanical Suffocation/Overlay. Most of the SIDS and Suffocation deaths were associated with bed sharing; 2 cases were associated with prone position on soft bedding. Accidental Suffocation has now moved up to the position of being the fourth leading cause of death to babies under one in Kalamazoo.

Many bed-sharing advocates recognize the serious and deadly hazards this practice poses to infants. These groups recommend safety precautions to reduce the risks involved in the practice of bed-sharing. Safety precautions include advice not to sleep with an infant if you are overly fatigued, smoke tobacco, have ingested alcohol, drugs, or prescription medication, which may impair arousal. There are significant problems with this approach. It is difficult, if not impossible, to selectively apply a public health message, nor can healthcare providers accurately predict risks for bed-sharing and future behavior. This approach uses a philosophy of *risk management*, rather than *risk avoidance*. While minimizing these preventable accidents is a good start, the Michigan FIMR network believes that attempts to eliminate them is a much better strategy.

The Michigan FIMR network is wholly supportive of breastfeeding. We fully endorse the AAP position statement on breastfeeding: Exclusive breastfeeding is ideal nutrition and sufficient to support optimal growth and development for approximately the first 6 months after birth. We recommend that breastfeeding continue for at least 12 months, and thereafter for as long as mutually desired.

We acknowledge that there are studies showing that bed sharing with a breastfeeding infant can have positive effects. McKenna and others (1994; 1997) maintain that infants and mothers, sleeping within arms reach, with nighttime breastfeeding is the normal and biologically appropriate behavior for sleep. In their research with 35 mother-infant couples who were monitored during 2 nights of their usual sleep arrangement (either bedsharing or alone) and 1 night of the unfamiliar arrangement, they found that the bed sharing couples had significantly longer duration of breastfeeding than those sleeping alone. The research team does allow that some bedsharing environments are dangerous, such as those in which infants sleep with mothers who smoke, or while under the influence of drugs including alcohol, or with an adult on a soft mattress, or on a water bed, or if the adult is obese or extremely fatigued. McKenna has, however, never studied infants who have died, or done population studies with representative samples. It is also important to note that the research sample size was very small and included only Latino mothers, and only mother and infant were included in the study, thus not assessing the confounding variables of other adults and children in the bed as well.

The Michigan FIMR network urges providers to consider that successful breastfeeding and bed sharing are not necessarily interdependent. Mitchell and Scragg (1996) have shown that many of the benefits received from bed sharing can be derived from co-sleeping – the infant sleeping in it's own bed in the same room with the mother. Parents should be supported and encouraged to meet these outcomes without the fatal risks of bed-sharing.

Supporters of bed-sharing also point out that there are cultural implications and that bed-sharing is a common practice in many parts of the world. A study by Potter et.al (1996) examined three populations in terms of ethnic differences in risk of SIDS. When their data is examined, one finds that in populations with bed-sharing rates of 5%, 25%, and 50%, the odds ratios for risk of SIDS is 2.2, 13.5, and 49.4 respectively. Thus, populations with higher rates of bed-sharing have higher risks for SIDS. In all these studies, the underlying problem may be that many of the deaths that are driving these relationships are not SIDS at all, but are accidental suffocation or other forms of positional asphyxia deaths due to presence of others in the infant bed.

Deaths due to accidental suffocation represent a significant yet preventable proportion of infant mortality. The position of the Michigan Fetal Infant Mortality Review Network is that the potential benefits of bed sharing do not mitigate against the fatal risks. Until proven otherwise, we recommend that providers do not endorse or encourage a practice whose hazards clearly outweigh the benefits.

References

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Summary: Michigan FIMR Position on Bed Sharing

- The Michigan FIMR Network recognizes that there are fatal hazards associated with bed sharing.
- Infant Deaths due to accidental suffocation represent a significant yet preventable proportion of infant mortality.
- The Michigan FIMR Network believes that the potential benefits of bed sharing do not outweigh the fatal risks.
- The Michigan FIMR Network recommends that providers do not endorse or encourage the practice of bed sharing.

