

Risk Reduction to Prevent Sudden Infant Death Syndrome: Knowledge and Opinions of Hawaii Physicians

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Introduction

Sudden infant Death Syndrome (SIDS) is the sudden and unexpected death of an infant for which, after an adequate investigation, no cause is found. Typically, SIDS deaths occur during periods of sleep, in infants under six months of age. SIDS has been considered mysterious because, after thirty years of investigation, the cause and mechanisms remain unknown, there is no way to predict which infants might be vulnerable to SIDS and—until a few years ago—there was no way to reduce the risk of a SIDS death.

Hypotheses that SIDS might occur more frequently in the prone sleep position date from the 1950s, but serious attention was not given to them until the mid-1980s.¹ Campaigns to reduce the frequency of prone sleeping in infancy were begun in Australia and several European countries. In every country, the change in sleep position recommendations was followed by a rapid decline in the SIDS rate. In 1992, the American Academy of Pediatrics made an official recommendation that healthy infants be placed to sleep on their back or side,² and more recently modified the recommendation to back only.³ Since 1992, the U.S. SIDS rate has dropped from a rate of 1.30 deaths per 1,000 live births in 1993 to an estimated rate of 0.69 deaths per 1,000 live births in 1997.⁴ No other factor than change in sleep position is believed to account for the magnitude of this decrease. However, there is still no clear explanation of why infants die less frequently in the supine position than in the prone.

In the U.S., sleep position recommendations have been presented to the public via the "Back to Sleep" campaign co-sponsored by the National Institute of Child Health and Human Development. Additional risk reduction recommendations have been included in "Back to Sleep", based on factors also associated with SIDS deaths. These include avoidance of overheating, soft bedding, and exposure to cigarette smoke. Although sleep positioning has received the major attention in the risk reduction campaign, these factors and tobacco smoke exposure in particular are clearly reducible risks not only for SIDS, but for other diseases and problems of infancy.

It is one thing to make public health recommendations, but another to see them implemented. Since most health care providers strongly advocated prone sleeping prior to these counter-intuitive recommendations, "Back to Sleep" called for significant changes in parental and provider behaviors. Although Hawaii's SIDS rate is one of the lowest in the nation, and fewer than thirty SIDS deaths occurred annually in Hawaii in the early 1990s, the prospect of any risk reduction had to be taken seriously. Therefore, the Hawaii SIDS program was concerned to see whether national recommendations were being implemented in Hawaii.

Methods and Results

In February 1996, the Hawaii SIDS Program received a grant from the Children's Miracle Network Telethon (Kapiolani Medical Center for Women and Children) to survey Hawaii pediatricians, obstetricians, and family practitioners about their knowledge and opinions of the "Back to Sleep" recommendations. The surveys included questions on the practitioner's recommendations to parents about infant sleep position, the practitioner's agreement with the "Back to Sleep" recommendations, and an opportunity for the practitioner to request professional or lay information on "Back to Sleep." Approximately 600 surveys were mailed with the assistance of Hawaii Pacific University research students. Three hundred fourteen responses were received, for an approximate return rate of 50%. A number of anonymous responses were received, but of those identifiable, 123 responses (43.8%) were from pediatricians, 68 (24.2%) from obstetricians, and 90 (32.0%) from family practitioners or physicians in other specialties.

In general, respondents were familiar with the "Back to Sleep" recommendations regarding sleep positioning, and supported them. Positions favored by respondents are shown in Table 1.

Table 1.—Physician Recommendations

Position Recommended:	Number responding to question	Percent responding to question
Both side and back	101	39%
Side	75	29%
No recommendation	53	20.4%
Prone	6	2.3%
Not applicable (Respondent does not work with infants/pregnant women)	24	9.3%

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Pediatricians were more likely than other practitioners ($p < 0.01$) to recommend supine or side sleeping, and to make recommendations about sleep position. None of the respondents suggesting prone sleeping was identified as a pediatrician, and only 6 pediatricians did not recommend a sleep position for their patients during infancy. (See Table 2)

	Peds.	OB/Gyn.	Fam. Prac.
Back, side, or both	109 (94.8%)	55 (83.3%)	60 (80%)
Prone or no recommendation	6 (5.2%)	11 (16.7%)	15 (20%)

*percentages are of identifiable respondents to this question, by specialty.
 $p < 0.01$

Physicians strongly recommended that pregnant women and infants avoid cigarette smoke. Two hundred sixty two reported giving this advice to their patients. Only 5 (1 pediatrician) stated that they did not make this recommendation. Ten stated that they recommended smoke avoidance only if asked.

Although physicians behaved in accordance with the "Back to Sleep" recommendations, their personal opinions about the recommendations varied. (See Tables 3 and 4.) Pediatricians were more likely to have an opinion about the recommendations, and to favor them. Many physicians remained unsure. Given the relative recency of these recommendations and the absence of scientific explanation for why they work, some uncertainty is probably appropriate. Even within the SIDS community, these recommendations have been controversial and both scientists and clinicians are troubled by the lack of empirically-tested data and physiologically-based theories.

	Number responding to question (N=269)	Percent of those responding to question
Strongly agree	53	19.7
Agree	101	37.6
Not sure	51	19.0
Disagree	2	0.7
Strongly disagree	10	3.7
No opinion	52	19.3

	Peds.	OB/Gyn.	Fam. Prac.
Agree at any level	77 (82.8%)	31 (62%)	42 (60%)
Disagree at any level	6 (6.4%)	4 (8%)	3 (4.3%)
No opinion	10 (10.8%)	15 (30%)	25 (35.7%)

(Note: differences among specialties are significant at the level of 0.05 using chi square.)

Respondents to the survey were gratifyingly eager to know more about the "Back to Sleep" recommendations. Seventy-nine physicians requested further information for themselves. One hundred fifty-five requested brochures for their patients.⁵

Conclusions

Information about SIDS risk reduction has diffused to and been accepted by most physicians responding to this survey. In spite of any personal reservations they may have had, responding physicians appeared to recognize these recommendations as the current standard of care. They were receptive to more information for themselves and their patients. This suggests, as has been found elsewhere, that "the 1992 AAP [American Academy of Pediatrics] Statement has had a significant impact on the routine advice provided to families regarding infant sleep practices, including infant sleep position."⁶

With all the enthusiasm about SIDS risk reduction and SIDS rate reduction, one important thing should not be forgotten. Infants continue to die, even when risk reduction recommendations are followed. SIDS deaths have been reduced, not eliminated. Compassionate care is still important for those who suffer this loss.

References

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3. Kattwinkle et al. Positioning and sudden infant death syndrome (SIDS): Update. *Pediatrics*. 1996. 98:1216-1218.
4. National Center for Health Statistics, Hyattsville, MD. Information provided by the National Sudden Infant Death Syndrome Resource Center, Vienna, VA, July 1999.
5. Available through the Hawaii SIDS Program, 1319 Punahou St., Honolulu, HI 96826, or through the National Institute for Child Health and Human Development Back to Sleep order center, (800) 505-CRIB.
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