A B S T R A C T

Objective: To identify contemporary Cree infant care practices and any risk factors associated with Sudden Infant Death Syndrome.

Methods: A questionnaire conducted and recorded in the homes of 70 Cree women (83% of sample available) with infants under 12 months of age, living full time on a Cree reserve. Participatory observation was also used with mothers who agreed to demonstrate certain features of Cree infant care.

Findings: 70% of mothers initiated breastfeeding and 43% nursed from 6 to 15 months. Cree infants are tightly swaddled and placed in a supine position for sleeping. Prenatal care is seldom utilized because of cultural beliefs that planning ahead constitutes bad luck during birth or results in deformed infants.

Conclusions: Existing infant care practices include several that are considered protective to an infant in terms of reducing vulnerability to SIDS. Swaddling infants in very warm houses and smoking during pregnancy could contribute to a higher SIDS incidence.

A B R É G É

Objectif : Répertoire les pratiques de puériculture crie et les facteurs de risque associés au syndrome de la mort subite du nourrisson (MSN).

Méthode : On a administré un questionnaire, dont on a enregistré les réponses, aux domiciles de 70 Cries (83 % de l'échantillon disponible) ayant des nourrissons de moins de 12 mois et vivant à plein temps sur une réserve crie. En outre, on a activement observé les mères qui ont accepté de faire la démonstration de certains aspects des soins aux nourrissons chez les Cries.

Résultats : 70 % des mères ont commencé d'allaiter, et 43 % ont continué pendant 6 à 15 mois. Les nourrissons crie sont étroitement emmaillottés et placés sur le dos pour dormir. Les soins prénatals sont rares, car selon les croyances culturelles, les projets d'avenir portent malheur durant l'accouchement ou sont la cause des difformités chez les nourrissons.

Conclusions : Parmi les pratiques de puériculture en vigueur, on estime que plusieurs protègent le nourrisson en réduisant sa vulnérabilité à la MSN. Par contre, l'emmaillotement dans des maisons surchauffées et le tabagisme durant la grossesse pourraient contribuer à l'incidence accrue de la MSN.

Cree Infant Care Practices and Sudden Infant Death Syndrome

C. Elizabeth Wilson, PhD

The purpose of this research was to document Cree infant care practices not available in database investigations and the possible association of such practices with Sudden Infant Death Syndrome (SIDS). While Pezzino and Iyasu¹ demonstrated, in a complete analysis of annual data sets on SIDS from the National Center for Health Statistics, that a higher percentage of American Indian mothers than Caucasian mothers had risk factors for SIDS, the authors acknowledge that database information does not include practices previously identified as SIDS risk factors, such as infant sleeping position, maternal smoking, and overheating. Also, while the benefits of breastfeeding and prenatal care have been highlighted as possibly protective to the vulnerability of SIDS,²⁻⁹ the study community for this research project did not participate in the 1993 Canadian Breastfeeding survey of First Nations.¹⁰ In fact, information describing contemporary First Nation infant care is seldom documented despite a reported high incidence of SIDS among First Nation communities. This lack of documentation has led to fundamental questions regarding the association of certain infant care practices with SIDS. For example, while much current SIDS research has focussed on supine infant sleeping position and campaigns to encourage supine sleeping have been credited with reducing SIDS among the general population, there has not been a corre-

sponding reduction among First Nation infants, despite the fact that Aboriginal infants are traditionally laid supine to sleep.

Although not representative of the entire First Nation population, this paper details infant care practices among a Cree population located north of Edmonton, Alberta and explores possible associations between these practices and SIDS.

METHOD

A questionnaire was developed to determine the contemporary infant care practices of Cree mothers with infants less than one year of age. According to the Band Health Unit, 120 Treaty mothers with newborn infants had returned directly from the hospital to live in the community. Ten infants lived full time with grandparents who were unable to provide maternal information and were therefore excluded from the survey. Twenty-four mothers and their infants had moved from the community to urban areas. Two mothers declined to take part in the survey. Seventy of the remaining 84 mothers (83%) were interviewed and were considered to be representative of the target population. All questionnaires were administered in the home of each interviewee and took approximately 45 minutes.

Follow-up visits of two weeks duration have been made five times a year since 1996. These visits made it possible for continuous monitoring of smoking cessation (or increase) and duration of breastfeeding. Women who had been part of the original study were still living in the community during the last visit in the summer of 1999.

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FINDINGS

Sleeping practices

Eighty percent of all Cree infants sleep in the same double bed as their mother and, frequently, other siblings (termed bed sharing). Bed sharing is not practised out of necessity – the houses may have up to three bedrooms – but to fulfill the parent(s)' desire to be physically close to their infant (Figure 1). All infants sleep supine and are swaddled with a thin blanket (similar in thickness to a receiving blanket) held in place by three pins. The infant's head and neck remain uncovered.

Sleeping location

When a crib is available in the home, infants are frequently placed supine and left to sleep alone for a few hours until the first nocturnal feeding. When the parent(s) retire for the night, they bring the infant into the parental bed to nurse and to sleep until morning.

Swaddling

Swaddling is a wrapping system used by Cree mothers. A thin blanket is tightly wrapped around an infant leaving head and neck free (Figure 2). Swaddling usually covers a plastic disposable diaper and sometimes a vest or undershirt. The normal wrapping practice includes placing both arms straight down by the infant's sides, pulling a portion of the blanket up to secure the legs, then wrapping the infant from the sides. As an infant gains length and weight, two thin blankets are sewn together to cover the larger body. Infants do not resist swaddling and according to the mothers, get cranky when not swaddled.

Swing

The swing, resembling a small hammock, consists of a regular household blanket swung over supporting ropes. The supporting rope (usually plastic) and two pieces of hide are fastened in the corner of the room by nails. New mothers sometimes fashion a piece of material into a triangle and place it over the infant (for safety purposes), tying it in a knot underneath the swing. The swings are given energetic pushes and swing freely for a considerable time. The non-stop motion seems to put the infant to sleep. The entire appara-

Figure 1. Mother, infant and sibling

Figure 2. Swaddled infant

tus is held in place by the weight of the infant's body. An adult pillow may be placed under the entire body of the infant (in the swing) to prevent its head from slumping onto its chest during sleep. If the infant is irritable during the night, s/he may be placed in the swing. Figure 3 identifies a traditional Cree swing that continues to be utilized by contemporary Cree mothers. During the night, the swing is placed directly over the double bed for easy access and pushing. When the swing is used during the day, it is usually relocated to another room. Infants are swaddled when placed in the swing.

Overheating

The average house temperature during the winter in the Cree community is 24° C. There is a danger of overheating for infants who are heavily swaddled and placed in a swing in an extremely warm room. Future research is required to explore this practice.

Breastfeeding

Nearly 30% of Cree women in the community did not initiate breastfeeding (Table I). Mothers who chose to bottle-feed their infants used a commercial infant

Figure 3. Traditional Cree Swing

TABLE I
Summary of Breastfeeding by Cree Mothers in Northern Alberta

Response	N = 70	(83%)
Initiated breastfeeding	70.2%	(48)
Breastfeeding duration:		
< 3 months	35%	(17)*
3 to 6 months	24%	(11)*
> 6 to 15 months	43%	(20)**
Did not initiate breastfeeding	30%	(19)

* had ceased nursing during time of original contact

** confirmed by follow-up visits

supplement, canned milk (usually mixed and diluted with water) or homogenized cow's milk. Canned milk had a longer shelf life, was less expensive than commercial infant supplements and was the preferred choice of mothers not breastfeeding.

Eighty-eight percent of mothers aged 25 to 30 years chose to breastfeed, while 43% of younger mothers (aged 20 to 24 years) chose to bottle-feed to allow more free time and to facilitate their return to school.

Prenatal care

Prenatal care is a benefit available but not frequently utilized by Cree women in the community. An initial visit will be made by the woman sometime between the first and second trimester to establish an approximate delivery date. The tendency to forego prenatal care is based on the spiritual belief that planning for an infant will bring bad luck, either in terms of birthing problems or physical deformities

of the infant. Pregnant Cree women do not attend prenatal class, nor do they plan clothing, purchase furniture or any other items associated with the infant until the child is born. There is a need to find a compromise between the spiritual beliefs of the Cree about birthing and the positive benefits physicians attempt to offer via prenatal care. This could be in terms of preparing for the spirit of the infant, for example.

Smoking

Mothers responded to questions about smoking, including whether they or others smoked in the home. They were also asked about smoking habits during pregnancy. Of the 70 mothers questioned (ranging from 15 to 37 years of age), 47 smoked. Smoking mothers smoked a median of 5 cigarettes daily (range = 1-30). Most of these mothers also smoked during their pregnancy; only 6 of 47 mothers changed their smoking habits

during pregnancy, stopping temporarily for the duration. In the homes of the smoking mothers, there were 37 other smokers; in the homes of the non-smoking mothers, there were 11 smokers. Clearly, a smoking prevention and cessation program is urgently needed to point out the dangers to infants of exposure to cigarette smoke on a daily basis. However, given the spiritual importance of smoking at special functions, some cultural sensitivity will be needed to tailor such a program to the traditions of the community.

CONCLUSIONS

Contemporary Cree mothers follow many infant care practices deemed acceptable by SIDS researchers, such as supine sleeping, and breastfeeding for extended periods of time. While many women smoke outside of the infant's environment, mothers continue to smoke during pregnancy as well as throughout the breastfeeding period. The lack of involvement by women in prenatal care is distressing. It is strongly suggested that an alternative approach to prenatal care be specifically designed so as not to infringe upon the cultural belief systems. By addressing the spiritual belief of the infant's reborn "spirit" which may require a smooth transition into the world, health administrators may avoid placing women in conflict between contemporary medical practices and traditional beliefs. The potential of overheating due to placing swaddled infants in the traditional swing (in warm houses) is worthy of future research.

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