

SLEEP HABITS IN NATIVE BRAZILIAN BORORO CHILDREN

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ABSTRACT - Sleep behavior patterns in childhood are influenced by familial, cultural and environmental factors. In understanding sleep in Native Brazilian Bororo children, one should consider the influence of their culture on the child's sleep. This research analyzes sleep habits of Native Bororo children from the Meruri village, located in an Indian Reservation in the state of Mato Grosso. Forty four children (24 M; 20 F) were evaluated; ages ranged from one month to 10 years, with a mean age of 4.9 years. Sleep characteristics were assessed by means of a standard questionnaire applied to the mothers. Cosleeping - sleeping together with family members - was a remarkable finding, in every child 0-2 year old and in 81.5% in the 2-10 years group. The second characteristic was sleeping with many people in the same room. There was an average of 5.1 people per room in the younger group and 3.9 people in the older group.

KEY WORDS: sleep, sleep habits, child, cosleeping, native Bororo indian, Mato Grosso.

Hábitos de sono da criança indígena Bororo

RESUMO - O padrão de sono da criança é influenciado por fatores familiares, culturais e ambientais. Para compreendermos as características do sono da criança indígena brasileira, devemos levar em consideração a influência de sua cultura. Esta pesquisa analisa hábitos de sono da criança indígena Bororo na aldeia Meruri, em reserva indígena no Mato Grosso. Quarenta e quatro crianças foram avaliadas (24 M; 20 F), com idades de um mês a 10 anos (média 4,9 anos). As características do sono foram avaliadas por meio de questionário padronizado aplicado em entrevista com as mães. O hábito de dormir junto (*cosleeping*) na mesma cama com familiares foi encontrado em todas as crianças abaixo de 2 anos; em 81,5%, entre 2 e 10 anos. Numerosos familiares dormem no mesmo quarto. Há em média 5,1 pessoas por quarto no grupo abaixo de 2 anos e 3,9 no grupo acima de dois anos.

PALAVRAS-CHAVE: sono, hábito de dormir, infância, nativo, índio Bororo, Mato Grosso.

Sleep behavior patterns and sleep disorders in childhood are highly influenced by familial, cultural and environmental factors. In an effort to understand sleep in Native Brazilian children, one should consider the influence of their rich culture and diversity on the child's sleep¹⁻⁷

Literature focusing on Native Brazilian sleep is unknown to us. Therefore, studies on sleep habits of these children are unavailable.

The objective of this research is to evaluate sleeping habits of Native Brazilian Bororo children. It is part of a broader investigation that aims to understand sleep in this ethnic group⁸⁻¹⁵.

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METHODS

Forty-four Native Bororo children with ages ranging from 0 to 10 years were evaluated (24 M; 20 F). Mean age was 4.9 years, ranging from one month to 10 years (Table 1). Sleep characteristics were investigated through interviews with the mothers during the winter of July 1998.

The interviews were conducted from house to house, including all homes with children in this age range. Four mothers were excluded: two, because they refused to be interviewed and two because they were absent from the village. Eleven yes/no multiple choice questions and 3 short-answer questions, focusing primarily on the habit of sleeping in the same bed with family members (cosleeping) and bedroom conditions were employed to evaluate the children's sleep habits. Besides maternal interviews, in selected cases, photographic documentation of the bedrooms were taken. These will be presented elsewhere.

The Meruri village, located in an Indian Reservation, in the municipality of General Carneiro, Mato Grosso, was studied. Meruri village is 112 km from the nearest town, Barra do Garças.

RESULTS

The data presented are divided into two groups (Table 2): the younger group, 0-24 months and the older group, 2 to 10 years. This age division was made because sleep habits, and especially cosleeping, may be interpreted distinctly in these two age groups.

Cosleeping (bedsharing) with family members was observed in all children under 2 years of age; and in 31 out of 38 children, 2 to 10 years old (81.5%). The 7 children that sleep alone comprise four boys (ages 4, 9, 10, 10), and three girls (ages 4, 5, 10). Among the ten year olds, 3 out of 5

Table 1. Distribution of Bororo children according to age and sex, in the Meruri village.

Age (years)	Male	Female
	N	N
0-1	3	3
2-3	8	4
4-5	5	3
6-7	3	4
8-9	3	3
10	2	3
Total	24	20

Table 2. Sleep characteristics of Bororo children in the Meruri village.

	0-24 months		2-10 years	
	N	%	N	%
Sleeps alone			7	18.4
Sleeps with				
mother	6	100	16	42.1
father	3	50.0	10	26.3
brother	2	33.3	8	21.0
sister	1	16.6	9	23.6
grandfather			5	13.1
grandmother				
others			3	7.8
In the bedroom				
TV	1	16.6	6	15.7
radio	3	50.0	24	63.1
quiet	6	100	35	92.1
noise			3	7.8
Bedroom temperature				
pleasant	6	100	32	84.2
too cold			6	15.7
too warm				
Total	6	100	38	100

children sleep alone (60.0%). Therefore, cosleeping is found in every Bororo child by the first two years of life and reduces markedly by the end of the first decade.

In our sample, cosleeping is more often found with both parents, followed by sisters, brothers, and less often grandmothers or others. In the item "others" we found 3 out of the 44 children (6.8%) studied, which was the case of three unrelated girls sleeping together.

The mean number of beds per bedroom was 2.0 in the 0-24 month old children; and 1.7 in the 2-10 year old children. The maximum number was 4 beds per bedroom. There was an average of 5.1 people per room in the younger group and 3.9 people in the older group. The maximum number of people was 9.

In the younger group (0-24 months), all evaluated children slept at night on beds with mattresses. In the older group (2-10 years old), 30 out of 38 children slept at night on beds with mattresses; 2 slept on mats; 3 slept on hammocks; and 3 slept on wooden beds without mattresses called *tarimba*. All evaluated children covered themselves with industrially made blankets.

The homes of all evaluated children had electric light. Radios were present in the bedroom in 50% of the younger age group (0-24 months old), in 63.1% of the older age group, and in 61.3% in the entire 44 children sample. TV was present in only one bedroom of the younger children's group (16.6%), and in 15.7% of the older group; 15.9% in the entire 44 children sample.

The bedroom was regarded as a silent atmosphere by all the mothers of children in the younger group and by 92.1% of the older group. Among the entire group of 44 children, the atmosphere was described as silent by 93.1%. The noises reported were of children talking and of neighbours. Room temperature was reported as pleasant by all the mothers of children in the younger group and by 84.2% of the older group. Room temperature was reported as pleasant by 81.8% of the 44 children sample. Six children had bedrooms described as cold; none had bedrooms described as hot. However, it should be borne in mind that the interviews were conducted during cooler winter days.

Although carefully looked for, no distinction in children's care was found due to age, gender or social status. The only exception noticed was the uniform use of beds with mattresses in the younger group, while mats, hammocks and wooden beds without mattresses were present in the older age group.

DISCUSSION

Cosleeping or bedsharing - sleeping with family members in the same bed, predominantly with both parents - was a remarkable finding in the Bororo children. All the children up to 2 years of age, and most of the children almost till the end of the first decade, show cosleeping habits. Only in the 10-year-old group we find a predominance of sleeping alone. This characteristic of Bororo children's sleep is markedly different from the data of other groups such as western urban and Asiatic populations¹⁶⁻²¹. In fact, in western urban societies cosleeping is a culturally avoided habit²²⁻²⁷.

A second remarkable characteristic of the Bororo children was the presence of many people and more than one bed in the same room. We noticed that the young group sleep in beds with mattresses, while the older group sleep in either hammocks, mats or wooden beds with or without mattresses. The presence of many people of the same family in the same bed or room provides greater physical proximity among family members, which means care and protection. The silence in the room and pleasant temperature create a cozy atmosphere for the child. These habits differ markedly from contemporary western urban populations, in which individual rooms and beds receive greater emphasis, even in childhood²⁸⁻³¹.

The present research is part of a larger project in order to determine the characteristics of normal sleep and sleep disorders in the Brazilian native population, including children and adults. In our first reports, recently published, we described the sleep characteristics of the Terena children^{32,33}. We do not know of any previous publications on the Brazilian native sleep. In the present paper we evaluated Bororo children, and found that Terena and Bororo - such distinct ethnic groups - bear the

same typical characteristics of cosleeping. All the Terena children showed the habit of cosleeping; similar to the Bororo group in which this habit decreased only at the end of the first decade of life.

External influence from urban Brazilian culture, was partial:

A) Electric lighting and industrially made blankets were totally adopted external influences.

B) Sleeping in beds with mattresses, radios and TV were partially adopted, and in various degrees.

C) The urban individual sleeping manner, with individual rooms and beds were not assimilated at all by the Native Bororo children in the Meruri village.

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