

Breastfeeding patterns in Rio Branco, Acre, Brazil: a survey of reasons for weaning

Padrões de amamentação em Rio Branco, Acre, Brasil: um estudo sobre fatores associados com o desmame

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Abstract

This paper presents a preliminary profile of infant feeding practices in a peri-urban Amazonian community. A random sample of 180 households with at least one child under the age of five years were interviewed in 1996 as part of a maternal-child health survey conducted in a peri-urban neighborhood in Rio Branco, Acre, Brazil. Since some households had more than one child under the age of five, data were collected for a total of 250 children. The results of the survey indicate that initiation of breastfeeding is nearly universal, with 96.0% of women breastfeeding their infants at birth. However, many mothers terminate breastfeeding before the recommended age. Forty-five percent of infants are weaned before six months and 62.0% are weaned before 12 months. The survey also reveals that mothers give supplemental food and drink at an early age. Finally, while women give a variety of responses for why breastfeeding was terminated, the most common answer (42.0%) was that the infant refused the breast. The meaning and implications of this response merit further investigation.

Breastfeeding; Weaning; Infant Nutrition

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While there is extensive documentation of breastfeeding patterns in Northeastern, Southeastern, and Southern Brazil, there is little research on the topic in the Amazon ¹. The few published studies on rural Amazon suggest a pattern of nearly universal initiation, extended duration of breastfeeding, and high rates of early supplementation. For example, along the Solimões River the mean duration of breastfeeding was 12.9 months. However, mothers introduced powdered milk early, with 81.0% supplementing in the first 3 months ². Writing about Lago Grande, Amazonas, Lares et al. ³ report that women breastfeed for a mean of 18 months, but 68.0% of mothers give their infants boiled tea in the first week of life. In contrast, studies on the urban Amazon suggest a pattern of early weaning and supplementation. In Manaus, 26.0% of mothers breastfed at 6 months, compared to 47.0% in smaller towns in the region (BEMFAM, 1982, *apud* Lares et al. ³). In Belem, 50.0% of infants ever breastfed were weaned by three months, and 66.0% were weaned by six months (Brito et al., 1975, *apud* Giugliano et al. ²). In Bairro Caranazal, a slum in Santarém, exclusive breastfeeding is rare, with mothers introducing artificial milk between 2 days to 2 weeks ³. Finally, in Rio Branco, Acre, 86.0% of children are breastfed at birth, but only 39.0% are breastfeeding at 6 months. Of these, only 4.0% were predominately breastfed and 0.5% exclusively breastfed ⁴.

With the population of the Amazon growing, it is crucial that health care providers have data on infant feeding practices in the region. This is especially true for the region's growing urban population, where growth is concentrated in low-income, peri-urban neighborhoods⁵. This paper provides preliminary data on patterns of breastfeeding in Triunfo (fictional name), one of over sixty peri-urban neighborhoods located in Rio Branco, the state capital of Acre.

Data collection

The data in this paper were collected during a maternal-child health survey conducted in Triunfo during September 1996. Using a stratified cluster sampling strategy, a team of five Brazilian interviewers surveyed mothers in 180 randomly selected households. During the face-to-face interview, interviewers recorded data for each child under the age of five residing in each household. Since some households had more than one child under the age of five, data were collected for a total of 250 children. When the interviewers encountered a house where no one was home, they asked neighbors if there were any children residing in the house and returned at a later date. Also, interviewers returned at a later date if the child's adult caregiver was not home.

All survey questions about breastfeeding were open-ended. Interviewers asked mothers if breastfeeding had ever been initiated and whether the child was currently breastfeeding. In the case of children who were no longer nursing, interviewers recorded the age at which breastfeeding ceased and the reasons for stopping. Data were also gathered on the practice of supplemental feeding for all children ever breastfed. Specifically, caregivers were asked at what age infants received water, other liquids (such as teas and juices), and foods. All interview schedules were checked in the field for completeness. Data were then coded and analyzed using SPSS.

Women interviewed ranged in age from 14 to 43, with a mean age of 24 years. Twenty-seven percent of mothers were primiparous, 27.0% had experienced two pregnancies, 29.0% had experienced 3-4 pregnancies, and 17.0% had been pregnant five or more times. Although the survey did not collect data on household income, other research suggests most households earned less than two times the monthly minimum wage (i.e., less than US\$180/month)⁶.

Setting

At the time of the study, Triunfo included over 1,000 houses, most of which were one-room wooden dwellings. Due to inadequate garbage collection, residents disposed of their refuse by burning it or by tossing it into a vacant lot, ditch, or pond. Few households had running water, relying instead on wells that run dry between July and September. In addition, there were no city sewer connections and few households had septic tanks. These conditions, combined with the pathogens endemic to the Amazon, pose a serious threat to infant health.

Triunfo's residents have access to a variety of public health facilities. Rio Branco has a public maternity hospital, pediatric hospital, emergency service, and tertiary care hospital. There is also a public health post located next to Triunfo. Prenatal care is available at the health post and maternity hospital. Of the women surveyed, 79.0% received prenatal care during their pregnancy. Of these, 60.9% started receiving care in their first trimester, 35.5% in the second, and 3.7% in the third. Informal observations and conversations with caregivers suggest that breastfeeding is commonly discussed during these prenatal consultations.

Results

While initiation of breastfeeding is not a problem in Triunfo (96.0% of infants breastfed at birth), early cessation is. The mean duration of weaning (nine months) masks the wide variation in the ages at which infants stop breastfeeding, ranging from two days to 44 months. Even with this variation, it is clear that a substantial proportion of children are being weaned before six months of age⁷. As indicated in Table 1, over one quarter of the infants in Triunfo are weaned before three months of age and another 18.0% stop breastfeeding before they are six months old. Only 38.0% of infants were still breastfeeding at 12 months.

Early supplementation (i.e., before six months) is another area where infant feeding practices diverge from recommended practice. Table 2 reveals that 26.0% of children received non-breastmilk foods before one month, and another quarter were receiving supplemental foods during their second and third months. In fact, only 38.0% of infants were exclusively or predominantly breastfed at six months. Additionally, mothers in Triunfo give their infants water at a young age, in an attempt to avoid dehydration in the hot Amazonian climate. As in-

dicated in Table 2, 62.0% of infants received water during the first month of life and a total of 93.0% received water by six months of age. Caregivers also give babies other liquids such as juice and teas, with 86.0% of infants receiving these before they were six months old.

Given the problems associated with early weaning and supplementation in low-income households, why is it so widely practiced? When making decisions about what and how to feed their infants, the women in Triunfo consider a number of factors. Mothers cited over 15 different reasons when asked why breastfeeding was terminated. The most frequently cited responses are the child's refusal of the breast (42.0%), subsequent pregnancy (17.0%), the mother's decision that it was time to stop (17.0%), mother's health problems (6.0%), mother working outside the home (6.0%), and insufficient milk (5.0%) (Table 3). While quantitative data were not collected on why mothers gave their infants supplemental food and drink, these reasons were frequently mentioned during informal conversations.

Discussion

Exposed to the poverty and substandard living conditions that characterize Amazonian peri-urban communities, infants in Triunfo experience numerous health problems. As such, exclusive breastfeeding until six months and mixed feeding until 12 months is an important method of protecting their wellbeing⁸. Data indicate that weaning patterns in Triunfo are comparable to those observed in the South and Southeast^{9,10,11,12,13,14,15}, and are better than those reported for the Northeast^{3,16}. Fifty-five percent are still breastfeeding at six months, and 38.0% are still breastfeeding at 12 months. Unfortunately, these figures also indicate that many infants are weaned long before the recommended age, meaning they are foregoing the nutritional and immunological advantages of breastmilk.

Patterns of supplementation do conform to those observed throughout Brazil, with mothers supplementing their infants' diets at an early age^{10,11,12,14,15}. Ninety-three percent of infants receive water, 86.0% receive other liquids, and 62.0% receive solid food before they are six months old. Informal discussions with mothers suggest that while many mothers have heard about the consequences of introducing food at an early age, few understand the dangers of giving their babies water, teas, and juices before six months. Since early supplementation

Table 1

Age at which infants terminate breastfeeding in Triunfo, Acre, Brazil.

| Age (in months) | % |
|-----------------|----|
| 0-2 | 27 |
| 3-5 | 18 |
| 6-11 | 17 |
| 12-17 | 17 |
| 18+ | 21 |

N = 152.

Table 2

Age at which infants receive supplemental food/drink in Triunfo, Acre, Brazil.

| Age (in months) | % |
|---|----|
| When child first received foods | |
| 0-1 | 26 |
| 2-3 | 24 |
| 4-5 | 12 |
| 6+ | 38 |
| When child first received water | |
| 0-1 | 62 |
| 2-3 | 27 |
| 4-5 | 4 |
| 6+ | 7 |
| When child first received other liquids (tea, juice, etc.) | |
| 0-1 | 40 |
| 2-3 | 38 |
| 4-5 | 8 |
| 6+ | 14 |

N = 200.

Table 3

Mother's stated reasons for terminating breastfeeding in Triunfo, Acre, Brazil.

| Reason | % |
|------------------------------------|----|
| Child refuse to breastfeed | 42 |
| Subsequent pregnancy | 17 |
| Mother decided it was time to stop | 17 |
| Mother worked outside of the home | 6 |
| Health problem of mother | 6 |
| Mother produced insufficient milk | 5 |

N = 148.

appears to be a common practice, many infants in Triunfo may be at risk of ingesting contaminated food and drink and contracting intestinal parasites and diarrheal diseases.

Before policymakers can design programs that encourage exclusive breastfeeding for six months and supplemented breastfeeding for twelve, they need to understand why practices diverge from the standard recommendations¹⁷. While women in Triunfo gave a variety of reasons for the cessation of breastfeeding, the most

common reason was infant refusal of the breast. In four out of every ten cases, infants are reported to have weaned themselves before one year of age. Though this response has been noted elsewhere in Brazil^{16,18}, its meaning, significance, and implications have not been fully explored¹⁹. With so many mothers attributing the decision to terminate breastfeeding and initiate supplemental feeding to their infants, this experience of self-weaning merits further investigation.

Resumo

O artigo apresenta um perfil preliminar das práticas alimentares em lactentes numa comunidade periurbana da Amazônia brasileira. Em 1996, foi entrevistada uma amostra aleatória de 180 famílias com pelo menos uma criança abaixo de cinco anos de idade, como parte de um inquérito materno-infantil realizado num bairro periférico de Rio Branco, Acre. Algumas famílias tinham mais de uma criança abaixo de cinco anos, de maneira que os dados foram coletados para um total de 250 crianças. Os resultados indicam que a amamentação inicial é quase universal: 96,0% das mulheres amamentam os filhos no período neonatal. Entretanto, algumas mães interrompem o aleitamento antes da idade recomendada. Quarenta e cinco por cento dos lactentes são desmamados antes dos seis meses de idade, e 62,0% antes dos 12 meses. O inquérito revelou também que as mães dão alimentação suplementar, tanto sólida quanto líquida, numa idade ainda precoce. Finalmente, embora as mães tenham alegado vários motivos para a interrupção do aleitamento, a resposta mais comum (42,0%) era a recusa do seio pela criança. O significado e as implicações desta resposta merecem mais investigação a fim de orientar as políticas de saúde pública relativas à alimentação infantil.

Aleitamento Materno; Desmame; Nutrição Infantil

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