

Breastfeeding Among Tribals: An Aid to Fertility Control

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Introduction

Breast-feeding has its socioeconomic, psychological, biological and immunological aspects. Human milk is known to be an ideal, safe and complete food for infants and being available at a suitable temperature, it helps promote normal dental and facial development. Biologically, it leads to earlier uterine involution, thereby restoring the size of the extended uterus, Further, it is known to enhance the child's immunity', and saves the additional cost of milk and fuel.

Recent trends and differentials in breast-feeding practices have been shown to have a major impact on fertility. It is considered as a natural birth spacer. Numerous studies have reported that breast-feeding reduces the probability of ovulation by, increasing the postpartum Amenorrhoea period and thereby resulting in a wider gap between two consecutive pregnancies. Despite the erosion of breast-feeding practices in developing countries it is known to provide protection against conception to about 3.4 million urban couples, while in rural areas, this number is estimated to be about ten times higher". Short' reports that more births are prevented by, lactation than by all other forms of contraception put together.

Objectives

In most parts of rural India, breast-feeding generally continues for more than a year, and probably plays an important demographic role by prolonging the relatively sterile postpartum period among rural women. The present study was conducted among tribals of the Udaipur district of Rajasthan among whom contraceptive practice is rare, with a view to investigate the relationship between breast-feeding and lactational Amenorrhoea, which was taken as a proxy indicator for the duration of infertility, and to estimate the extent to which tribal communities are naturally protected from the risks of pregnancy.

Sample and Methodology

The study area was located about 20-24 kms from Udaipur City in Rajasthan. Data was collected from about 200 randomly selected tribal females in the age

group of 15-44 years. Some lactating mothers were excluded from the analysis since their suckling behavior was so extreme that their inclusion skewed the entire data.

The tribals were endogamous groups with numerous exogamous subgroups. Three-fifths of the households were nuclear, the society was patriarchal and women occupied a relatively low position. Agriculture was the main occupation. Illiteracy was high - the schools showed poor enrolment and only about 50 per cent attendance. The situation was even worse in the case of girls who remained at home to perform domestic chores and take care of siblings. Marriage was universal and at an early age: the mean age 1 and 22 years for females and males respectively. Bride price was and paid in cash or in kind. Fertility was high with an average of 5-6 surviving children, though some couples even had 8-9 children.

Lack of employment opportunities and mass illiteracy, made small landholding the only means of livelihood. This did not yield much; some sold the small quantity of milk that they had, while a few men worked as laborers in mines, factories and transport company. Health services were barely available the 'Bhopa' or the local quack was the answer to all Problems be they health, land disputes or famine. Although awareness of contraception specially, sterilization was high the attitude was not very Positive, and therefore acceptance was rare. Thus, sheer poverty, high infant loss, mass, illiteracy, low Women's status, traditionalism and lack of contraceptive awareness were major factors contributing to the high fertility of these groups.

The influence of variables such as the number of suckling episodes, duration of breast-feeding, parity, prenatal and infant mortality on the duration of lactational infecundability was examined. Each pregnancy episode and corresponding duration and frequency of breast-feeding was recorded.

The following definitions were used:

Breast-feeding, frequency was measured in terms of the number of sucking episodes, per day. Breast-feeding duration was defined as the total time infant or child was breast-fed (in months), and the duration of postpartum, Amenorrhoea, taken as a proxy for lactational infertility, was defined as the period from delivery until the first evidence of menstrual bleeding.

Results and Discussion

In general, the tribal females were found to breast-feed their children at least one-and-a-half to two Years. An examination of data on duration breast-feeding, by order of birth failed to reveal any clear relationship. As expected, the duration

of breast-feeding was the highest (20.05 months) for the, first birth order. However, after this, no clear trend was observed and the duration varied from 15 to 19 months (Table 1). In contrast, a linear relationship emerged between the frequency of suckling (perday) and birth order, starting with the second conception. In other words the frequency of suckling was found to decline for every subsequent birth order starting from the second order with the exception of the fifth order.

Table 1: Duration of breast-feeding and frequency of suckling by birth order

Order of Birth	No. of Respondents	Avg. Breast-Feeding Duration	Frequency of Suckling (Per Day)
1	83	20.05	6.06
2	118	18.65	6.28
3	105	18.62	6.04
4	98	18.84	6.03
5	68	19.16	6.12
6	51	18.23	6.02
7	30	18.48	5.95
8	18	15.23	5.98

It is interesting to note that, with an increase in the duration of breast-feeding the period of postpartum Amenorrhoea also increased ^{2 10-12}. This relationship was found to be true among all age groups (Table 2). Interestingly, the duration of post partum Amenorrhoea also increased with the age of the mother.

Table 2: Age-wise variation in duration of postpartum Amenorrhoea by duration of breast-feeding

Age of Respondent (Years)	Duration of Breast-feeding (months)			
	6.0-11.5	12.0-17.5	18.0-22.5	24.0+
15-19	8.23	10.19	14.46	15.45
20-24	8.76	10.35	14.10	16.21
25-29	11.96	10.60	13.12	15.85
30-34	-	10.97	12.43	17.01
35-39	-	10.36	13.10	18.41

40-44	-	12.54	16.0	-
Average	9.23	10.78	13.85	16.18

Table 3 suggests an almost linear relationship between the frequency of suckling and duration of Amenorrhoea for all age groups. In general, mothers who breast-fed their infants four times a day experienced an Amenorrhoea period of 11.6 months, while those who breast-fed their infants 8.1 to 10 times a day had an Amenorrhoea period extending upto an average of 14.5 months. This finding has been corroborated by several, research worker's.^{4, 6, 12, 13.}

TABLE 3: Age-wise variation in the duration of postpartum Amenorrhoea by frequency of suckling

Age of Respondents (Years)	Frequency of Suckling (Per Day)			
Duration of Amenorrhoea (months)				
	4.0	4.1-6.0	6.1-8.0	8.1-10.0
15-19	-	13.15	13.21	10.86
20-24	12.5	12.98	14.63	15.32
25-29	11.3	13.20	13.46	14.46
30-34	12.0	13.25	15.50	15.0
35-39	11.7	13.30	16.75	-
40-44	-	13.82	12.14	-
Average	-	13.30	13.90	14.50

Numerous studies have indicated the importance of breast-feeding particularly in traditional societies. Wherein it acts as a natural birth spacer ^{2, 14, 15.} Erosion of breast-feeding practices and even slight shifts have been found to increase or decrease the risk period of pregnancy. Data on birth intervals by duration of breast-feeding reveals that an increase in this period helps elongate the birth interval; the birth interval was found to increase from 1.9 years on 6-11 months of breast-feeding, to a maximum of 3.5 years with at least two years of breast-feeding (Table 4, Panel A).

TABLE 4:

A. Duration of Breast-feeding (months)	Birth Interval (Years)	B. Suckling Episodes (Per Day)	Birth Interval (Years)
6-11	1.9	5	2.2
12-27	2.6	5-5.9	2.8

18-23	3.1	6-6.9	3.0
24+	3.5	8+	2.6

In contrast, no clear trend was observed between the average number of suckling episodes and the average birth interval. Panel B of Table 4 shows that the birth interval was maximum (3.0 years) for 6-6.9 suckling episodes per day and was the shortest (2.2 years) when the infant was breast-fed fewer than five times per day.

Another important aspect which affects both the intensity (duration and frequency) of breast-feeding and the duration of postpartum Amenorrhoea is the outcome of the previous pregnancy. Biologically, it has been shown that the regular removal of milk is essential for the maintenance of lactation. Physical contact with the baby and the sight and smell of the infant helps initiate the secretion of prolactin which stimulates secretory activity¹⁵. Thus, the outcome of the previous pregnancy has an important bearing on the resumption of ovulation. In an earlier study, Nag¹⁶ found that the mean birth interval following an infant foetal death and the next conception was shorter than that following a live birth. This was attributed to the latent function of extended lactation, which reduces the probability of early conception, resulting in the suppression of the cyclical changes of the ovary, ultimately prolonging the relatively sterile Amenorrhoea period. Interestingly, the mean birth interval following an abortion was found to be the shortest (1.2 years), followed by the interval following infant loss (1.6 years). The birth interval between live births was found to be the longest. (2.5 Years).

In general, the tribal females were found to experience at least one-and-a-half years of lactational Amenorrhoea. Both socio-cultural practices and economic compulsions tend to promote and prolong breast-feeding among the tribals. Thus, breast-feeding is a major factor which (somewhat unknowingly) helps lengthen the relatively infertile period among these communities, and perhaps has a major role to play in being an effective natural contraceptive for these women who shy away from most of the modern contraceptive techniques available today. Keeping in view its practical relevance, there is a need for family planning program managers to intensify their educational efforts to further support and reinforce breast-feeding practices.

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