

BREAST FEEDING PRACTICES IN FEMALE STERILIZATION AND MTP SEEKERS: AN EDUCATIONAL AND ECONOMIC ANALYSIS

by

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SUMMARY

A sample survey of breast feeding practices in F.S. and M.T.P. seekers on 889 women, who had had at least 2 live births and their last child born within 5 years, was done. The results indicated that practice of prolonged breast feeding is quite popular in under privileged strata, but duration is shortened in economically better off and educated women. Further, it was not easy to explain in the same hospital attending urban sample with similar socio-economic profile, why prolonged breast feeding was infrequent in M.T.P. seekers as compared to F.S. seekers?

Introduction

Extended breast feeding associated with post partum abstinence were practised primarily in traditional agrarian population of India as a child spacing method. Postpartum abstinence seems primitive now (Jain *et al*, 1984; Jain *et al*, 1984). As industrialisation and education is taking hold, women have less and less positive attitude towards breast feeding and concept of prolonged lactation for birth spacing are found unacceptable in urban areas in India. We must

not be complacent about trends in breast feeding patterns. In this context, in depth objective assessment of breast feeding practices in particular in urban poor population attending our hospital would be more meaningful to determine inter-relationship between economic and educational status of women with breast feeding, its role in the child spacing, and to define the extent of problem of declining trend in breast feeding (B.F.).

Material and Methods

This study is based on sample survey on female sterilization (F.S.) and M.T.P. seekers at Lady Hardinge Medical College and Smt. Sucheta Kriplani Hospital in Delhi. This is large teaching hospital

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Accepted for publication on 27-6-84.

in Delhi catering to women from lower socio-economic group and weaker sections. A sample of 889 women was drawn randomly over a period of 9 months (Jan.-Sept., 1983) and was divided into two study group.

- (1) M.T.P. seekers without sterilization—389.
- (2) Female sterilization seekers (Post-partum/interval with M.T.P.)—500.

Data was collected by interviewing the women after sterilisation or M.T.P. by preplanned questionnaire by one of the authors. The type and duration of breast feeding was obtained preferably from women who had had at least 2 live births with the last child born within 5 years of survey. Care was taken to exclude those cases who were vague in their answers to minimise recall lapses.

Attempt was made to compare the duration of breast feeding in F.S. and M.T.P. seekers and to analyse educational and economic correlates of B.F. Statistical evaluation was carried out using analysis of variance. Zero order correlation coefficients were computed to see the linear relationship between economic of educational status and duration of BF, post partum amenorrhoea (P.P.A.) and child spacing. Null hypothesis that these correlation coefficient differ significantly from zero was also tested by using large sample test at 5 per cent level of significance.

Results

The survey revealed that mean age of MTP respondents was 27.4 compared to 29.2 years for F.S. seekers. MTP respondents had 2.14 live births on an average while those who underwent F.S. had 3.5 live births. Table I indicates the

TABLE I
Distribution of Women Undergoing F.S. Or M.T.P. by Duration of Breast Feeding

Duration of B.F. < (months)	F.S. seekers (N-500) %	MTP seekers (N-389) %
1	99.38	91
2	98.14	77.12
6	89.48	30.07
9	79.59	24.16
12	71.13	17.22
15	58.14	14.91
18	43.71	5.39
21	28.87	0.77
24	17.32	0.77

duration of B.F. among F.S. and M.T.P. seekers. Results indicate that almost all women undergoing F.S. and more than 90 per cent of women undergoing just M.T.P., initially breast fed their child, but at 6 months following childbirth, 90 per cent of F.S. seekers were breast feeding, compared with 30 per cent of M.T.P. acceptors ($P < .01$). Difference was even more pronounced at 1 year (ranging from 71.13% of F.S. acceptors to 17.22% of M.T.P. acceptors).

The duration of B.F. for successive births in F.S. seekers as compared by coefficient of correlation suggested that pattern of B.F. for 2 successive births for the same individual was approximately similar ($r = 0.5$, $P < .05$). Table II gives the mean duration of B.F. according to educational status of women. The mean duration of B.F. in F.S. seekers was 18.99 months. The duration of B.F. was negatively correlated with the educational status ($P < .05$).

Table III gives the mean duration of B.F. by total monthly income. Data clearly indicate that lower socio-economic group had longer duration of B.F. as compared to middle and higher income

TABLE II

Mean Duration of Breast Feeding, Post Partum Amenorrhoea, Birth Spacing According to the Educational Status

Education	0	1-5	6-8	9-11	<12	Overall	Analysis of variance (P value)
Breast feeding (Mothers)	21.22± 11.93	18.42± 11.67	17.45± 11.44	15.08± 10.67	11.36± 7.0	18.99± 11.78	<.05
Post Partum amenorrhoea (Mothers)	9.88± 9.5	8.74± 7.45	7.32± 8.71	4.71± 5.61	3.12± 4.21	8.34± 8.72	<.05
Birth spacing (years)	2.93± 1.50	2.72± 1.45	2.80± 1.42	2.75± 1.46	3.46± 1.58	2.18± 1.148	N.S.

TABLE III

Duration of Breast Feeding According to Total Monthly Income

S. No.	Income (Rs.)	No.	Duration of breast feeding years (Mean ± SD)
1.	<500	216	1.78 ± 0.01
2.	501-1000	231	1.41 ± 0.82
3.	1000<	53	1.13 ± 0.81

1 vs 2 vs 3 = $P < .05$

groups. When the difference between mean duration of B.F. in different income groups was compared using one way analysis variance with unequal size block, it was found to be statistically significant ($P < .05$). Economic level of the F.S. seekers as judged by monthly income of family also showed a negative zero order correlation with the duration of B.F. However, the result was not found to be statistically significant.

Mean duration of postpartum amenorrhoea (PPA) of F.S. seekers was 8.34 months. The educational status of mothers also showed a negative relationship with length of P.P.A. ($P < .05$). A consistent decline of 68 per cent in the average duration of P.P.A. was observed with an increase in educational level from illiteracy to university level (Table II).

Increase in years of education did not seem to have any major impact on birth spacing as there was no clear trend noted (Table II).

From the correlation matrix (Table IV) we conclude that there was positive linear relationship between duration of B.F. and length of P.P.A. An increase in duration of B.F. was accompanied by an increase in length of P.P.A. The coefficient of correlation between these 2 variables was + 0.32 ($P < .05$). How-

TABLE IV
Zero Order Correlation Coefficient Matrix

	Postpartum amenorrhoea	Breast feeding	Educational status
Postpartum amenorrhoea	1.0000	0.3200	-0.4680
Breast feeding	0.3200	1.0000	-0.2829
Educational status	-0.4680	-0.2829	1.0000

ever, the education of women had a negative linear relationship with duration of B.F. and length of P.P.A. ($r = 0.2829, -0.468$ respectively) and both the correlation coefficients were statistically significant ($P < .05$).

To see the combined effect of duration of B.F. and educational status on the P.P.A. the multiple correlation coefficient was calculated (.5288), which indicated that when both variables were used they could explain the 27.96 per cent variation, whereas when only B.F. was taken into consideration, it was able to explain only 10.2 per cent, while educational status alone could explain 21.90 per cent variation. In other words education status is much more important factor than the duration of B.F. on P.P.A.

Discussion

The incidence of B.F. is not only closely linked with social customs, which differ from one country to another but also varies from different regions of the same country and within social groups of a community according to economic status (Sharma, 1983). The results of this survey also indicate that custom and practice of B.F. has rightly percolated down to us, but duration has shortened in economically better off and educated women. While educational and economic status of women showed a significant effect on B.F. practices, it was not easy to understand and explain, in same hospital attending urban sample with similar socio-economic profile, why prolonged B.F. was infrequent in M.T.P. seekers as compared to F.S. seekers (Table I). This could partly be due to better educational status of M.T.P. seekers as compared to F.S. respondents. However, there is a need for further in-

vestigation to determine the factors responsible for this changing B.F. patterns in F.S. and M.T.P. seekers.

The picture of B.F. practices in F.S. seekers in this survey seem close to findings of Prema *et al* (1979) and Sharma's (1983) recent survey done in urban population in 4 regions of country reporting mean duration of B.F. as 19.8 and 14.6 months respectively. On the other hand, duration of B.F. in M.T.P. seekers was found to be no different to our previous study done in under five clinic (Sudarshan *et al* 1982).

Similar to other Indian studies (Malkani *et al* 1959; N.I.N. report, 1978; Sudarshan *et al* 1982) this analysis also confirmed that maternal education had significant negative zero order correlation ($P < .05$) with length of postpartum amenorrhoea, as well as a good positive correlation ($P < .05$) was observed with the length of P.P.A. and duration of B.F.

It is generally accepted that long period of child spacing is partly achieved by prolonged B.F. practices. This survey reveals that in illiterate F.S. seekers, prolonged B.F. was probably the major factor responsible for 3 years spacing in successive birth; but in educationally better off women with shorter duration of B.F. this gap was achieved with the help of contraceptive usage and/or M.T.P. This shows that we are definitely proceeding in the right direction, but that there is a need to raise the critical consciousness of mothers about the need for prolonged breast feeding goes without saying.

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THANKS

The author is indebted to the Director, NIN, for providing the facilities and to the staff of the laboratory for their assistance.

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