

**BREASTFEEDING PRACTICES OF MOTHER'S OF CHILDREN LESS THAN 2 YEARS AND ITS RELATION TO SOCIOECONOMIC STATUS AND NUTRITIONAL STATUS OF MOTHER**B. Mythili<sup>1</sup>, Sirajuddin Nazeer<sup>2</sup>, S. Brindha<sup>3</sup>**HOW TO CITE THIS ARTICLE:**

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**ABSTRACT: AIM:** To study the various demographic factors affecting breastfeeding practices and the nutritional outcome of children who were exclusively breastfed and the nutritional status who were not exclusively breastfed. **METHODS:** Cross sectional descriptive study of children less than 2 years in Anganwadi in and around MGM Hospital Trichy city. **RESULTS:** Percentage of mothers who initiated breastfeeding in less than 1 hour was 58.52% as against the Nations rate which is 23.4%, however the rate of breastfeeding more than 6 months at Nations level is 56.7% which almost close to the result obtained in this study. **CONCLUSION:** This study showed that maternal nutritional status and socioeconomic status remained positively associated with breastfeeding suggesting social policies affecting maternal nutrition and interventions to overall improve the better living of people which would have long lasting effect in nutritional outcome of babies.

**KEYWORDS:** Exclusive breastfeeding, socioeconomic factors, nutritional outcome and demographic factors.

**INTRODUCTION:** Breast milk is a "LIVE" fluid. It contains all the nutritional requirements and anti-infective properties. Human milk satisfies all the nutritional demands of an infant for the first 6 months of life. It is easily digestible and promotes skin to skin contact which strengthens emotional bond between mother and baby. Colostrum in long term prevents atherosclerosis, hypertension, obesity, allergy and facilitates immunity.

WHO along with UNICEF recommends exclusive breastfeeding up to 6 months of age and continued breastfeeding with complementary feeds until 2 years of age (WHO Geneva 2001). Hence the Government of India incorporated The Infant and Young Child feeding guidelines in IMNCI.<sup>1</sup> Its aim is to increase rate of initiation of breastfeeding within 1 hr. from existing 15.8% to 50% and also to increase exclusive breastfeeding rate in the first 6 months from the existing level of around 41% to 80% as stated by Apurba Sinhababu and Dipta et al in their study.<sup>2</sup>

Therefore in order to promote breast feeding, authorities are called for behavior change communication through trained women for breastfeeding support would promote breastfeeding and allay myths. Intersectoral planning between the ministries of Health and Family Welfare, Women and Child Development and Food and Nutrition Department, is essential to promote breastfeeding along with ground level activities by Anganwadi workers.

**MATERIAL AND METHODS:** Data was collected in predesigned questionnaire. The questionnaire contained certain particulars of the mother like age at child birth, educational level, occupation, pregnancy desirability, number of antenatal visits, intake of iron and folic acid tablets, socioeconomic status and their knowledge and attitude towards breastfeeding and details about initiation and duration of breastfeeding.

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Nutritional status of mother was assessed by BMI and the presence or absence of clinical features of nutritional deficiency was looked for. Weight was recorded by weighing machine and height by a non-stretchable inch tape. Infants anthropometric measurements (Height, weight, head and chest circumference and mid arm circumference) was measured on the day of interview. A probability value (p value) of less than 0.05 was considered to be statistically significant.

**RESULTS:** Out of 528 subjects 60 subjects 11.36% of mother's had evidence of iron and vitamin deficiency and 88.63% i.e., 468 subjects did not have evidence of nutritional deficiency. When comparing those who had evidence of nutritional deficiency only 45.0% have initiated breastfeeding in less than 1 hour as against 60.25% who did not have evidence of nutritional deficiency with a p value of 0.04 which is statistically significant.

While comparing the SES (Socioeconomic status) with initiation of breastfeeding it was found that among the Lower SES class out of 14.39% only 27.63% have initiated breastfeeding in <1hr. when compared with other SES where 63.71% have initiated breastfeeding in less than 1hr. with a p value of 0.0008 which is statistically highly significant showing that lower SES people delay in initiating breast feeding. Even though out of 5.30% of upper SES 67.85% have breastfed for more than 6 months in comparison to lower SES where out of 14.39%, 28.94% have breastfed for more than 6 months the p value obtained is 0.196 by chi-square test saying that SES has got no statistical significance with duration of breastfeeding.

Correlating the presence or absence of iron/vitamin deficiency in mother with anthropometry of the child, 11.4% of the mother's had evidence of nutritional deficiency among which 20% of their babies fall under 3<sup>rd</sup>. percentile when compared with 88.6% of those without any evidence of nutritional deficiency where 18.37% fall under 3<sup>rd</sup>. percentile with a p value of 0.05 stating that there is statistically significant correlation between the presence or absence of nutritional deficiency of the mother with anthropometry of the child.

When BMI was correlated with anthropometry it was found that among the normal BMI group of 86.36%, only 13.81% of their babies fall under <3<sup>rd</sup> percentile when compared with underweight group of 4.54% where 75% of their babies fall under 3<sup>rd</sup> percentile suggesting that BMI of the mother has got statistically significant correlation with anthropometry of the baby with a p value of 0.014. Among mothers 70.64% fall under normal BMI (18.5- 24.9), 26.5% over weight (25 - 29.9), 2.08% under obesity (30-34.9) and 4.54% were underweight. When comparing underweight mothers with the rest of the population only 12.5% have practiced exclusive breastfeeding as against 59.92% with a p value of 0.004 which is statistically highly significant.

When SES was cross tabulated with the presence or absence of features of iron and vitamin deficiency it was found that only 3.57% of upper SES people had evidence of nutritional deficiency in contrast to lower SES people where 36.84% of mother's had evidence of nutritional deficiency with a p value of 0.007 which is statistically highly significant stating that mother's in lower SES have features of nutritional deficiency.

When socioeconomic status of the family was correlated with the BMI of the mother out of 14.39% in lower SES, 21.05% of mothers had BMI below 18.5 denoting underweight. When this lower SES was compared with other SES only 1.76% was below underweight BMI with gives a p value of 0.0001 by chi-square test which is statistically highly significant.

When correlating SES of the family with Anthropometry of the child it was found that out of 5.30% in higher SES 21.42 %were below 15<sup>th</sup> percentile when compared to 14.39% in lower SES

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77.63% were below the 15<sup>th</sup> percentile with a p value of 0.01 by chi- square test showing that it is statistically significant.

Out of 38.53% of exclusively breastfed babies 11.90% fall under <3<sup>rd</sup>. percentile when compared to 61.46% of not exclusively breastfed babies where 32.83 %fall under <3<sup>rd</sup> percentile with a p value of 0.021 which is statistically significant by Fisher's test.

**Nutritional outcome of those babies who were exclusively breastfed when compared to those who were not exclusively breastfed by means of anthropometry of the baby:**

<6 Months	0.021	Significant
6 Months -12 Months	0.0009	Highly Significant
13 Months-18 Months	0.0003	Highly Significant
19 Months-24 Months	0.0068	Highly Significant

**Table 1: Outcome of Exclusively Breastfed Babies**

**Socioeconomic factors and nutritional status of mother on anthropometry of the baby**

SES* with Nutritional deficiency features in mother	0.007	Highly Significant
SES* with BMI of Mother	0.0001	Highly Significant
SES* with Anthropometry of baby	0.01	Significant

**Table 2**

\*SES – Socio Economic Status

**DISCUSSION:** In this study the presence or absence of iron and nutritional deficiency features and BMI of the mother at time of interview had significant relation with initiation and period of exclusive breastfeeding. This has been supported by a study conducted at urban Karachi population which also found that poor nutritional status of mother is associated with high perinatal mortality and increased incidence of LBW babies.<sup>3</sup>

In this study it was found that Lower SES people are more likely to defer administration of colostrum due to varied misconceptions. Similarly lower SES people are likely to delay initiating breastfeed (27.63%) when compared to high SES (53.57%) as revealed in this study. Lower SES mothers are more likely in a position to suffer from nutritional deficiency and therefore poor nutritional outcome in their babies too. This result is similar to a study conducted at Guatemala by Frojo et al., and Rogers et al who showed that there is direct relationship between nutritional status of mother and nutritional status of baby.<sup>4</sup> In this study too it is established that BMI of the mother which is the marker of nutritional status of the mother is directly related to nutritional status of the baby which is reflected in Anthropometry of the baby.

But however socioeconomic status was in no way related to duration of breastfeeding as evident in this study though mothers of lower SES had delay in initiating breastfeeding and many of them did not administer colostrum. This is in contradiction to a study done by Rama ram et al.<sup>5</sup> and Kar et al at Darjeeling.<sup>6</sup> This result is similar to a study by Kumar S Nath.<sup>7</sup> and Malhotra R Noheria done at New Delhi.<sup>8</sup>

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**LIMITATIONS:** Nutritional status of mother was assessed by taking into account the biometric variables like height and weight and it was computed to BMI. Clinical evidence for iron and vitamin deficiency features were used as a supplement to nutritional status assessment.

Dietary assessment and biochemical data were not taken into account, since there is lack of nationally representative data on dietary intake and laboratory values of lactating women.

In assessing the anthropometry of the child although one measurement plotted on a growth chart can be used to screen children for nutritional risk, it does not provide adequate information to determine the child's growth pattern. When plotted correctly, a series of accurate weights and measurements of stature or length offer important information about a child's growth pattern, which is also influenced by many factors as gestational age, birth weight, and parental stature. Hence one time measurement in this study have not accurately determined the nutritional status of those children.

**CONCLUSION:** This study was done to correlate the breastfeeding practices of mothers with nutritional status of the mother and the socioeconomic status of the family and the various demographic factors which influence breastfeeding practices ultimately to the nutritional outcome of the baby.

This study showed that maternal nutritional status and socioeconomic status remained positively associated with breastfeeding suggesting social policies affecting maternal nutrition and interventions to overall improve the better living of people which would have long lasting effect in nutritional outcome of babies.

The improvement in exclusive breastfeeding rate can be achieved by promoting breastfeeding as early as <1hr. of birth which can reduce Infant Mortality Rate to 22%. A January 2008 series on Infant Mortality & Malnutrition published in Lancet Medical Journal stated that 77% of child death attributable to sub-optimal breastfeeding are due to nonexclusive breastfeeding during 0-6 months of life.<sup>9</sup>

Appropriate information about breastfeeding is usually received from government facilities during antenatal and postnatal visits. Therefore the importance of providing correct information to mothers by medical and paramedical personnel about proper feeding of infants has been emphasized.<sup>10</sup>

Therefore the information obtained in this study can be used as a tool to counsel parents as well as to design interventions in order to motivate actions that will promote and support optimal breastfeeding practice and ultimately better outcome of babies.

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