

## A study on breastfeeding and its determinants among lactating mothers at a tertiary care hospital of Kashmir: A Prospective Study

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### Abstract

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### INTRODUCTION

Over 820 000 children's lives could be saved every year among children under 5 years, if all children 0–23 months were optimally breastfed. Breastfeeding improves IQ, school attendance, and is associated with higher income in adult life [1]. Breast milk is the natural and complete diet for a newborn for the initial part of his life. It contains all the nutrients in adequate amounts essential for the physical and mental development of the child. Besides the health benefits, it also creates a bond of affection between the mother and her child. It has been found to have life-term effects on psychosocial development of a child [2]. Based on scientific evidence, the World Health Organization (WHO) recommends the practice of exclusive breastfeeding the infants for first 6 months after their birth, in addition to its continuation with supplementary foods until 2 years or more [3]. Acute infections like otitis media, Haemophilus influenza meningitis and urinary tract infection occur less commonly and with less severity in breastfed infants [4]. Breastfed children perform better on intelligence tests, are less likely to be overweight or obese and less prone to diabetes later in life. Women who breastfeed also have a reduced risk of breast and ovarian cancers. Inappropriate marketing of breast-milk substitutes continues to undermine efforts to improve breastfeeding rates and duration worldwide [5]. A new report by WHO, UNICEF, and the International Baby

Food Action Network (IBFAN) reveals that despite efforts to stop the harmful promotion of breast-milk substitutes, countries are still falling short in protecting parents from misleading information [6]. WHO recognizes almost all mothers as biologically capable to breast feed, except in a small number of health conditions, and that the use of breast milk substitutes is justifiable [7]. Breastfeeding practices, however, are not merely biological issues but are also related to health behaviours and are influenced by multifactorial determinants, including historical, socioeconomic and cultural factors [8]. Breastfeeding is dependent on personal attributes, such as age, weight, education and confidence [9]. This study was conducted to study variables effecting breastfeeding.

### Materials and Methods

A prospective study was conducted in Department of Pediatrics, SKIMS Medical College and Hospital which is one among few tertiary care pediatric centers in Kashmir. It receives patients across the Kashmir Division on UT J&K for pediatric care. A written informed consent was taken from all mothers willing to participate in the study.

Study population: Lactating mothers with infants of 1month of age.

**Inclusion criteria:** All lactating mothers who reported to our outpatient department and vaccination center for different issues. **Exclusion Criteria:** Mothers or infants who had contraindication to breastfeeding or did not give consent.

**Study period:** Lactating mothers with their infants attending OPD between 1<sup>st</sup> October 2020 to 1<sup>st</sup> march 2021

**Sample size:** 1135 lactating mothers.

**Method of data collection and analysis:** Purposive sampling method was used to select participants All the lactating mothers with infants were interviewed at 1 month after delivery and followed at 3 and 6 months. The data was entered into a computerized excel spread sheet and subsequently analyzed using SPSS and presented in the form of tables and other graphical representation. Descriptive statistics were presented as number and percentage. Bivariate and Multivariate analysis of different variables vs breastfeeding at 6 months was performed.

## DISCUSSION

The majority of babies in our study were males (51.5 %) as compared to females (48.5 %). A study in Kashmir [10] showed male children as majority (60%) which is similar to our study. Both studies were conducted in a tertiary care hospital The prevalence of exclusive breastfeeding at 1 month, 3 month and 6 months was 89.9%, 79.7%, 57.5% respectively which shows a continuous fall in breastfeeding prevalence as the age of infant increases. The prevalence of exclusive breastfeeding at 6 months was (57.5%) in our study which is higher than national level (46%)

as reported by National Family Health Survey 3 (NFHS3) [11]. A study in Bangalore showed majority participants were Housewives 86% [12]. Our study also showed majority (55.7%) as housewives. The bivariate and multivariate analysis showed that male babies, babies born to multiparous mothers, babies born to well-educated mothers, babies born to housewives and those of rural areas are more likely to continue exclusive breastfeeding for 6 months. Though a statistically significant p value ( $p < 0.05$ ) was not documented with respective to above variables. A study by Tang et al [13] also showed that there was positive association between education and Breastfeeding. A study conducted in Sri Lanka by Agampodi SB et al [14] have reported influence of

paternal education and maternal employment in their study.

**Conclusion:** The American Academy of Pediatrics recommendation is crucial for the health of the infant and is primarily influenced by social factors. This study underscores the influence of maternal education and job on breastfeeding practices. Findings from this study contribute to the growing body of research on the social determinants of breast feeding. This study suggests that extensive public health interventions on breastfeeding promotion in Jammu and Kashmir should target mothers with low levels of education and also on working mothers by providing desirable environment and education

**What was already known:** maternal education has impact on breastfeeding

**What this study adds:** maternal occupation in addition to maternal education affects breastfeeding prevalence

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## RESULTS

**Table 1:** Demographics of study population

**TABLE 2:** Bivariate analysis of different variables determining exclusive breastfeeding at 6 months

**TABLE 3:** Multivariate analysis of different variables determining exclusive breast feeding at 6 months

**Table 1: Demographics of study population**

|                         |                      | N    | %      |
|-------------------------|----------------------|------|--------|
| GENDER                  | MALE                 | 585  | 51.50% |
|                         | FEMALE               | 550  | 48.50% |
| HABITAT                 | RURAL                | 559  | 49.30% |
|                         | URBAN                | 576  | 50.70% |
| MATERNAL                | Graduation and above | 554  | 48.80% |
| EDUCATION               | Undergraduate        | 581  | 51.20% |
| PARITY                  | PRIMI                | 554  | 48.80% |
|                         | MULTI                | 581  | 51.20% |
| BREAST FEEDING PRACTICE | EBF                  | 1020 | 89.90% |
| AT ONE MONTH            | BF+FF                | 46   | 4.10%  |
|                         | FF                   | 69   | 6.10%  |

|                         |            |     |        |
|-------------------------|------------|-----|--------|
| BREAST FEEDING PRACTICE | EBF        | 905 | 79.70% |
| AT THREE MONTHS         | BF+FF      | 125 | 11.00% |
|                         | FF         | 105 | 9.30%  |
| BREAST FEEDING PRACTICE | EBF        | 653 | 57.50% |
| AT SIX MONTHS           | BF+FF      | 236 | 20.80% |
|                         | FF         | 246 | 21.70% |
| MOTHER                  | HOUSE WIFE | 632 | 55.70% |
| AT SIX MO               | WORKING    | 503 | 44.30% |

EBF = exclusive breastfeeding FF= formula feeding

**TABLE 2: Bivariate analysis of different variables determining exclusive breastfeeding at 6 months**

| BIVARIATE ANALYSIS Table 2 |                         |     |        |    |        | CHI<br>SQUARE<br>(P-VALUE) | RR(95%CI)        |
|----------------------------|-------------------------|-----|--------|----|--------|----------------------------|------------------|
| VARIABLE                   | CATEGORIES              | EBF |        |    |        |                            |                  |
|                            |                         | YES |        | NO |        |                            |                  |
|                            |                         | N   | %      | N  | %      |                            |                  |
| GENDER                     | MALE                    | 528 | 51.70% | 57 | 50.00% | .121(.728)                 | 1.007            |
|                            | FEMALE                  | 493 | 48.30% | 57 | 50.00% |                            | 0.99 (0.95,1.03) |
| HABITAT                    | RURAL                   | 504 | 49.40% | 55 | 48.20% | .051(.821)                 | 1.005            |
|                            | URBAN                   | 517 | 50.60% | 59 | 51.80% |                            | 0.99 (0.95,1.03) |
| MATERNAL<br>EDUCATION      | Graduation and<br>above | 502 | 49.20% | 52 | 45.60% | .518(.472)                 | 1.014            |
|                            | Undergraduate           | 519 | 50.80% | 62 | 54.40% |                            | 0.98 (0.94,1.02) |
| PARITY                     | PRIMI                   | 493 | 48.30% | 61 | 53.50% | 1.120(.290)                | 0.97             |
|                            | MULTI                   | 528 | 51.70% | 53 | 46.50% |                            | 1.02(0.98,1.062) |
| MOTHER AT<br>SIX MO        | HOUSE WIFE              | 574 | 56.20% | 58 | 50.90% | 1.186(.276)                | 1.002            |
|                            | WORKING                 | 447 | 43.80% | 56 | 49.10% |                            | 0.97(0.94,1.018) |

**TABLE 3: Multivariate analysis of different variables determining exclusive breast feeding at 6 months**

| VARIABLE                  | CATEGORIES           | ODDS RATIO | 95% CI    |
|---------------------------|----------------------|------------|-----------|
| <b>GENDER</b>             | MALE                 | 1.071      | 0.72,1.57 |
|                           | FEMALE               | 0.78       | 0.40,1.50 |
| <b>HABITAT</b>            | RURAL                | 1.04       | 0.71,1.54 |
|                           | URBAN                | 0.95       | 0.64,1.40 |
| <b>MATERNAL EDUCATION</b> | Graduation and above | 1.15       | 0.78,1.70 |
|                           | Undergraduate        | 0.86       | 0.58,1.27 |
| <b>PARITY</b>             | PRIMI                | 0.811      | 0.55,1.19 |
|                           | MULTI                | 1.23       | 0.83,1.81 |
| <b>MOTHER AT SIX MO</b>   | HOUSE WIFE           | 1.24       | 0.84,1.82 |
|                           | WORKING              | 0.8        | 0.54,1.18 |