Original Article

# Factors Associated With Timely Initiation Of Breastfeeding Among Mothers In JPMC

Beena Barkat Ali, Shazia Naseeb, Razia Korejo

**ABSTARCT**

**Objective:** Study the frequency of common factors Associated with timely initiation of breastfeeding.

**Study design:** Descriptive Cross sectional.

**Duration and place of study:** this study was conducted at, Jinnah postgraduate Medical center Karachi unit-I from 19 May to 18 November 2015.

**Material & Methods:** A total of 108 mother infant pairs were selected by Non probability consecutive sampling technique, meeting our inclusion criteria. Informed consent was taken after explaining the pros and cons, purpose and procedure of the study. The common factors associated with timely initiation of breastfeeding like age of the mother, gestational age, parity, educational status, working status of the mother, mode of delivery, birth weight of the baby and gender of the baby were evaluated through face to face interview of the mothers .

**Results:** In our study mean age of mothers found to be 26.1 years old. Mean birth interval found to be 3.1years. Mean birth weight of the babies was 2.86 kg. Mean gestational age of the Patients was 38.1weeks. Most of the babies were female 63(58%) other were male 45(42%).Out of 108 patients, 40(37%) received Primary education, 27 (25%) were graduated, 18(17%) were Illiterate, 13(12%) secondary and 10(9%) were Intermediate. Thirty eight (35.2%) belonged to middle class, 56(51.9%) to upper middle class and only 14(13%) to higher class. Fifty eight (53.7%) women were multiparae and 76(70.3%) were employed; And Mostly 66 (61%) delivered through Cesarean -Section.

**Conclusion:** According to this study the main conclusion of Common factors associated to timely initiation of breastfeeding were age of mothers(74.07%) more than 20years , parity 2 or more( 61.1%), educational level secondary and above (50.9%), house wives (32.9%), male sex of infant (41.6%) and Vaginal mode of delivery (38.8%)

**Keywords:** Breastfeeding, Breastfeeding initiation, primigravidae, practices

## INTRODUCTION:

Many women want to breastfeed but are unable to do so. Lack of confidence in their ability to breastfeed, problems with proper positioning of neonate, myths of inadequate milk supply, breast pain and lack of support from health professionals in early post discharge period are some reasons why breastfeeding is not initiated and if initiated is not continued for the recommended duration[2].

Antenatal counseling and postnatal lactation support, improve rates of exclusive breastfeeding. There has been a substantial improvement over the past two decades in the proportion of mothers receiving antenatal care from a skilled health provider, increasing from 26% in 1990-91 to 61 percent in 2006-07 and 73% in 2012-13. Antenatal visits provide an opportunity to educate women regarding the benefits of breastfeeding and can help improve rates of initiation of exclusive breastfeeding[1-4].

Baby Friendly Hospital Initiative was launched in 1991 by UNICEF[4] and WHO[5] to ensure that all maternity services support breastfeeding. Ten steps to successful breastfeeding need to be implemented if a health facility wants to be accredited as Baby Friendly. Step 3 of these steps is 'inform all pregnant women about benefits and management of breastfeeding'. Implementation of baby friendly hospital initiative in Sindh, Pakistan improved breastfeeding practices in some of the centers to 98.97%[5].

Breastfeeding practices in Pakistan are far from ideal. Ninety-four percent of children were reported to have been breastfed at some time. 38% percent of children less than age 6 months are exclusively breastfed. The median duration of exclusive breastfeeding is less than one 1month. Complementary foods are not introduced in a timely fashion for all children. Only 57% of breastfed children age 6-9 months received complementary foods. Overall, only 15% of children ages 6-23 months are fed appropriately based on recommended infant and young child feeding (IYCF) practices[2].

Breastfeeding offers many advantages to the newborn and the new mother. Although emphasis is put on breastfeeding rates, even then, breastfeeding often fall short of the required frequency of breastfeeding.

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The WHO[6] and American Academy of Pediatrics[7] both recommend exclusive breastfeeding for six months and complementary feeding with breastfeeding for at least 12 or 24 months. In our study 78% of women who were counselled knew that exclusive breastfeeding needs to be practiced for first six months and only 35% knew that babies less than 6 months do not need extra water. Ahmad et al report 68% of women breastfeed exclusively after breastfeeding and Dhandapany et al report that more women practice exclusive breastfeeding after counselling[8,9]

The Pakistan Demographic and Health Survey[2] also reported introduction of complementary feeding in 10% of infants less than 6 months and 19% of infants aged 4-5 months. Bottle-feeding is reported as a norm even though not supported by health professionals. More than 1 in 5 babies under two months of age are bottlefed[3]. Similar findings could not be gathered from our study, as the patients were not followed up in the postnatal period. Our study was limited in this context. Early initiation of breast feeding, especially within one hour of birth, refers to the best practice recommended by WHO[10]. Early initiation of breast feeding will directly support progress toward achieving MDG through reducing neonatal mortality[11].

In Pakistan breastfeeding is nearly universal although early initiation is not common. A survey done in 1990-91 revealed that only 8.5% of neonates were breastfed within the first hour and only 25.8% were breastfed on the day of delivery. The estimates rose to 27.2% and 65.5% in 2006-2007, shows considerable improvement[12].

The rationale of the study is that on extensive literature search study on factors associated with timely initiation of breast feeding has not been done locally and there is dearth of literature internationally as well. Therefore this study is designed to estimate the magnitude of these factors and to generate local data. Secondly some policy could be devised to highlight this issue thereby timely initiation of breast feeding could be initiated that will prevent maternal and neonatal morbidity and mortality.

## MATERIAL AND METHOD

Women meeting the inclusion criteria admitted in the Department of Obstetrics and Gynecology, JPMC, Karachi, were enrolled in the study. It was a cross sectional study. Mothers were selected through non probability technique. Informed consent was taken after explaining the pros and cons, purpose and procedure of the study. The factors associated with timely initiation of breastfeeding like age of the mother, gestational age, parity, educational status, and occupation of the mother, mode of delivery, birth weight of the baby and gender of the baby were evaluated through face to face interview of the mothers and confirmed by hospital records and documented on structured Performa .

SPSS version 20 was used for data entry and analysis. Mean±SD was calculated for age of the women and gestational age at delivery, birth weight of the baby and birth interval. Frequency and percentages were calculated for gender of the baby, parity, educational level, mode of delivery, occupation of women, family monthly income and family structure (nuclear or extended). Effect modifiers were controlled through stratification of family monthly income, family structure (nuclear or extended) and birth interval to determine the effect of these on outcomes. Chi square test were applied and p value =0.05 was taken as significant.

## RESULTS:

Mean age of the patients was 26.1 years ranging from (18-35) years. Mean birth interval of the baby was 3.1years. Mean birth weight of the baby was 2.8 Kg. Mean gestational age of the Patients was 38.1 weeks. The gender distribution of the baby most of the babies were female 63(58%) other were male 45(42%). Out of 108 mothers 18(17%) were Illiterate, 40(37%) were Primary educated, 13(12%), were secondary, 10(9%) were Intermediate and 27 (25%) were graduated. The distribution of monthly income of mother women 38(35.2%) belong to middle class (monthly income <25,000 RS.), 56(51.9%) to upper middle class (monthly income 25,000-50,000 RS.) and only 14(13%) belong to higher class (monthly income >50,000 RS.). Fifty-Eight (53.7%) women had multiparty. Most of the women were employed 76(70.3%). Forty-two patients (38.9%) women belonged to age 26-30 years with next majority between 21-25 years i.e. 36 (33.3%) and only 5(4.7%) patients were more than 30 years of age. The gestational ages at delivery ranged from 34 to 42 weeks but most of them belong to gestational age more than 37 weeks i-e 80(74%). Most of the women 66(61%) who have delivered baby through C-Section. Effect modifiers were controlled through stratification of family monthly income, family structure (nuclear or extended) and birth interval to determine the effect of these on outcomes. Chi square test was applied and p value =0.05 was taken as significant as shown on (Table-2-3). There was significant association is seen family income and gender together affecting breast feeding(table-2),significant association is seen family income and Parity, family income and gest.age affecting breast feeding(Table-3) and significant association is also seen family structure and education, family structure and mode of delivery affecting breast feeding(Table-4).and birth interval and parity, birth interval and gest. Age are also showing significant association.

## DISCUSSION:

Breastfeeding is advocated as an important child survival strategy by the World Health Organization especially in countries with poor socioeconomic background[1-2]. Breast-feeding is fundamental to the health and development of children and important for the health of their mother as well.

In Pakistan breastfeeding is nearly universal although early initiation is not common. A survey done in 1990-91 revealed that only 8.5% of neonates were breastfed within the first

| CHARACTERISTICS OF MOTHERS | FREQUENCY | PERCENTAGES (%) |
|---|---|---|
| Age | | |
| <20 Years | 25 | 23.1% |
| 21-25 Years | 36 | 33.3% |
| 26-30 Years | 42 | 38.9% |
| >30 Years | 5 | 4.7% |
| Parity | | |
| Primiparae | 42 | 38.9% |
| Multiparae | 58 | 53.7% |
| Grand multiparae | 8 | 0.4% |
| Educational Status | | |
| Illiterate | 18 | 17% |
| primary | 40 | 37% |
| secondary | 13 | 13% |
| Intermediate | 10 | 9% |
| Graduate | 27 | 25% |
| Gender of Baby | | |
| Male | 45 | 42% |
| Female | 63 | 58% |
| Birth Weight of baby | | |
| <3kg | 35 | 32% |
| >3kg | 73 | 68% |
| Mode of Delivery | | |
| Vaginal delivery | 42 | 39% |
| Cesarean- sections | 66 | 61% |
| Profession of Mothers | | |
| House wife | 32 | 29.7% |
| Working | 76 | 70.3% |

Table 1. Demographic and Obstetric Characteristics of Mothers n=108

| | Age more than 20 years | Age less than 20 years | Total | P-value | Baby Gender Male | Female | Total | P-value |
|---|---|---|---|---|---|---|---|---|
| Family Income<br>Rs < 25,000<br>Rs 25-50.000<br>Rs >50,000 | 20(18.5%)<br>47(43.5%)<br>13(12%) | 18(16.7%)<br>09(8.3%)<br>1(0.9%) | 38(35.2%)<br>56(51.9%)<br>14(13%) | 0.001* | 30(27.8%)<br>10(9.3%)<br>05(4.6%) | 8(7.4%)<br>46(42.6%)<br>09(8.3%) | 38(35.2%)<br>56(51.9%)<br>14(13%) | 0.000* |
| Family Structure<br>Nuclear<br>Extended | 35(33%)<br>45(42.5%) | 03(2.8%)<br>23(21.7%) | 38(35.8%)<br>68(64.2%) | 0.004* | 16(14.8%)<br>29(26.9%) | 29(26.9%)<br>34(31.5%) | 45(41.7%)<br>63(58.3%) | 0.276 |
| Birth Interval<br>1-2<br>3-4<br>>5 | 45(41.7%)<br>35(32.4%)<br>0(0%) | 16(14.8%)<br>10(9.3%)<br>2(1.9%) | 38(35.8%)<br>68(64.2%)<br>68(64.2%) | 0.049 | 25(23.1%)<br>13(12%)<br>2(1.9%) | 36(33.3%)<br>32(29.6%)<br>0(0%) | 61(56.5%)<br>45(41.7%)<br>2(1.9%) | 0.079 |

Table 2. Association of Family Income and Gender affecting breast feeding

| | Parity 2 &>2 | Parity <2 | | | Gest.Age Full term baby 37-42 | <37 Weeks | | |
|---|---|---|---|---|---|---|---|---|
| Family Income<br>Rs < 25,000<br>Rs 25-50.000<br>Rs >50,000 | 15(41.7%)<br>39(18.5%)<br>12(0.9%) | 23(14.8%)<br>17(23.1%)<br>2(0.9%) | 38(35.2%)<br>56(51.9%)<br>14(13%) | 0.002* | 28(25.9%)<br>46(42.6%)<br>06(5.6%) | 10(9.3%)<br>10(9.3%)<br>08(7.4%) | 38(35.2%)<br>56(51.9%)<br>14(13%) | 0.011* |
| Family Structure<br>Nuclear<br>Extended | 25(23.1%)<br>41(38%) | 15(13.9%)<br>27(25%) | 45(37%)<br>68(63%) | 0.820 | 30(27.8%)<br>50(46.3%) | 15(13.9%)<br>13(12%) | 45(41.7%)<br>63(58.3%) | 0.276 |
| Birth Interval<br>1-2<br>3-4<br>>5 | 45(41.7%)<br>20(18.5%)<br>1(0.9%) | 16(14.8%)<br>25(23.1%)<br>1(0.9%) | 61(56.5%)<br>45(41.7%)<br>2(1.9%) | 0.009* | 51(47.2%)<br>29(26.9%)<br>0(0%) | 36(9.3%)<br>32(14.8%)<br>2(1.9%) | 61(56.5%)<br>45(41.7%)<br>2(1.9%) | 0.005* |

Table 3. Association Family income with Parity of the Mothers and Gestational age

| | Education Level: secondary & above | Primary or less | | | Spontaneous vaginal delivery | C section | | |
|---|---|---|---|---|---|---|---|---|
| Family Income<br>Rs < 25,000<br>Rs 25,50.000<br>Rs >50,000 | 23(21.3%)<br>30(27.8%)<br>05(4.6%) | 15(13.9%)<br>26(24.1%)<br>9(8.3%) | 38(35.2%)<br>56(51.9%)<br>14(13%) | 0.282 | 15(13.9%)<br>24(22.4%)<br>03(2.8%) | 23(21.3%)<br>33(30.6%)<br>10(9.3%) | 38(35.2%)<br>56(51.9%)<br>14(13%) | 0.445 |
| Family Structure<br>Nuclear<br>Extended | 30(27.8%)<br>20(18.5%) | 15(13.9%)<br>43(39.8%) | 45(41.7%)<br>63(58.3%) | 0.000* | 29(26.9%)<br>13(12%) | 16(14.8%)<br>50(46.3%) | 45(41.7%)<br>63(58.3%) | 0.000* |
| Birth Interval<br>1-2 (years)<br>3-4<br>>5 | 40(37%)<br>10(9.3%)<br>0(0%) | 21(19.4%)<br>35(32.4%)<br>2(1.9%) | 61(56.5%)<br>45(41.7%)<br>2(1.9%) | 0.000* | 24(22.2%)<br>17(15.7%)<br>1(0.9%) | 10(34.3%)<br>16(25.9%)<br>1(0.9%) | 61(56.5%)<br>45(41.7%)<br>2(1.9%) | 0.936 |

Table 4. Association of Family structure, birth interval and mode of delivery

hour and only 25.8% were breastfed on the day of delivery. The estimates rose to 27.2% and 65.5% in 2006-2007, shows considerable improvement[12].

Promotion of early initiation of breast feeding is necessary for the prevention of avoidable deaths of children as different studies have proved that death rate is high when breast feeding started late[13]. It is shown from different studies that factors like antenatal visits, knowledge about breast feeding, number of live births, age of mother, mode of delivery, her education, occupation and economical status all have strong association with early initiation of breast feeding.

Breastfeeding is multi-factorial in nature and different factors will be at play depending on individual circumstances. We found similar results when we compared our study with a study which was done at Saudi Arabia in that study. The independent predictors of timely initiation were mothers who refrain from prelacteal feeding (16%) and mother's residence rural area (19.2%), absence of breast problems (12.7%) and parity 2 0r more 27%.10 other factors were age >20 years (11.34%), educational level secondary and above (22%), house wife (11.8%), male sex of infant (13.4%). Full term (12.6%), mode of delivery; spontaneous vaginal delivery (13%)[14].

Sharma A et al[15] also found significant association similar to our study between early initiation of breast feeding with education, occupation and economic status of the mother but reported no significant association with maternal age, type of family, family size and live birth. Setegn et al [16] also reported same as formal educated women were 1.4 times as likely to initiate breast feeding with first hour of delivery.

In many developing countries particularly in Asia, the converse is true and extended lactation is more frequent in poor uneducated women in rural areas, and in urban areas higher level of education are negatively associated with breast feeding initiation and duration[17-18].

Other studies in Jeddah, Saudi Arabia by Fida and Al-Aama (2003) and Shawky and Abalkhail (2003)[19-22] included 21% of university graduated women (Fida & Al-Aama, 2003), 39.5% illiterate women and 88% housewives (Shawky & Abalkhail, 2003)[22-25]. A more recent study, which also was done in a private hospital in Jeddah, Saudi Arabia (Mosalli et al, 2012)[23] reported fewer multiparous (54%), graduated (24%), and caesarean delivery (31%) women compared with current study. However, Mosalli et al. (2012) reported similar percentages of housewives (78%) and similar age group distribution.

Many studies have indicated that a woman's obstetric experience may influence her breast-feeding behaviors. Our study shows positive association with vaginal delivery while some researchers[24] have found no association between mode

of delivery and breastfeeding, but others[25] have reported a negative association between cesarean delivery and breast-feeding initiation but not duration once breast feeding has commenced.

**Conclusion:**

Hence we conclude that age of mother (being more than 20 years), having two or more children, having at least secondary level of education, having male last child, having last birth by spontaneous vaginal delivery and being a house wife were factors responsible for timely initiation of breast feeding in our study.

**Recommendation:**

In the light of our findings we recommend that breastfeeding education should be in conjunction with obstetrics. Hence two clinics should be merged into one at Jinnah Postgraduate Medical Center Karachi.

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