

## Effect of antenatal counselling on early initiation of breastfeeding, an interventional study at two Federal Hospitals, Islamabad Pakistan

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### Abstract

**Objective:** To determine the effect of antenatal counselling at term on early initiation of breastfeeding.

**Method:** The prospective, questionnaire-based study was conducted at two state-run hospitals in Islamabad, Pakistan, from July to December 2016. One hundred subjects at the Federal General Hospital represented intervention group A and received special antenatal counselling regarding benefits of early initiation of breastfeeding, while 100 subjects at the Islamabad Polyclinic formed control group B and received routine counselling. Data was analysed using SPSS Version 20.

**Results:** Of the 200 subjects initially enrolled, 185 were included in the data analysis, 91 in the intervention group (A) and 94 among the control group (B) and Rest were excluded due to missing data. In group A, 46 (50.5%) women initiated breastfeeding within one hour of childbirth, while in group B 17 (18.08%) women did early initiation ( $p < 0.001$ ).

**Conclusion:** Counselling was seen to be associated with early initiation of breastfeeding.

**Keywords:** Breastfeeding, Early initiation, Counselling (JPMA 70: 70; 2020).

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### Introduction

Breastfeeding is today the single most cost effective preventive intervention for improving the survival and health of children World Health Organization Secretariat, 2010

Early initiation of breastfeeding continues to remain uncommon in Pakistan, and the practice of giving pre-lacteal feeding is still prevalent. Early initiation of exclusive breastfeeding helps as the starting point for a continued care for mother and new-born that can have long-lasting effects on health and development. Also, suggested cause is effect relation between early breastfeeding and reduction in infection specific neonatal death. Breastfeeding, sometimes lessens the risk for post-partum blood loss by increasing uterine contraction, premenopausal breast cancer, and cancer of ovaries.<sup>1</sup> Pakistan Demographic Health Survey 2013 data showed the prevalence of early initiation of breast-feeding to be only 18 percent. And the prevalence of pre-lacteal feed (newborn were given something other than breast milk) is 75% during the first 03 days of life. National strategies

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to promote and protect breastfeeding are implementation of the International Code of Marketing of Breast Milk Substitutes (International Code), 'Baby-Friendly Hospital Initiative.

Verbal counselling is a very simple and in-expensive intervention that easily can be done during ante-natal visits to encourage mother for early initiation of breastfeeding but is sadly often unnoticed.<sup>2</sup> Promoting breastfeeding is a public health "best buy". It has a huge effect in dropping infant disease and death and also is highly amenable intervention in public health. A study has shown that the individual behaviours are amenable and changes in individual behaviours collectively contribute to a positive national trend in breastfeeding.<sup>3</sup>

World Health Organisation (WHO) and United Nations International Children's Emergency Fund (UNICEF) recommendations for breastfeeding include early initiation of breastfeeding within one hour after birth; exclusive breastfeeding (defined as no water, other fluids or foods) for six months (180 days); and continued breastfeeding for two years or beyond with the addition of timely, adequate, safe and properly fed complementary foods.<sup>4</sup>

It is projected that 1.5 million lives can be protected each year if infants were fed according to the recommended breastfeeding practices.<sup>4</sup>

A study on breastfeeding said breast milk is a super-food and the power of 1st hour for baby is undeniable. It is also known as a 'silver bullet' in the fight against malnutrition and infant deaths.<sup>5</sup> It estimated that 830,000 newborn deaths could be pre-empted each year if all infants were given breast milk in the first hour of life. Children who are not breast-fed are 15 times more likely to die from pneumonia and 11 times more likely to die from diarrhoea. Almost 1 in 8 of the young lives lost each year can be saved through breastfeeding.

The current study was conducted to see whether a targeted antenatal counselling approach at term affects the proportion of mothers for initiation of breastfeeding within the first hour of childbirth.

### Subjects and Methods

The prospective, questionnaire-based study was conducted at the Gynaecology and Obstetrics departments of two state-run hospitals in Islamabad, Pakistan, from July to December 2016.

The Sample size was calculated by WHO sample size calculator<sup>6</sup> at 95% confidence level and with alpha 0.05, assuming 12% early initiation of breastfeeding in the population.<sup>7</sup> Consecutive sampling method was used to raise the sample after approval was obtained from the two institutional ethics boards.

One hundred Subjects at the Federal General Hospital represented intervention group A and received special antenatal counselling regarding benefits of early initiation of breastfeeding, while 100 subjects at the Islamabad Polyclinic formed control group B and received routine counselling. Those included were booked females admitted at term (38+ weeks), in first stage of labour who furnished verbal informed consent. Women who were not willing, had high-risk pregnancy, and mothers with sick babies were excluded. All the subjects were visited post-delivery to see the early initiation of breastfeeding. Lady health visitors (LHVs) were trained with the help of the Infant and Young Child Feeding (IYCF) manual, which is a standard written material prepared by WHO and UNICEF.<sup>4</sup>

Group A received focussed antenatal counselling by the trained LHVs face-to-face about the benefits of initiating breastfeeding within the first hour of life, correct positioning of the infant and mother to establish successful breastfeeding and benefits of exclusive breastfeeding.

**Table-1:** Demographic Characteristics of groups.

	Control Group n (%)	Study Group n (%)
Economical status (Pak. Rupees)		
5000 - 10,000	10 (10.6)	19 (20.9)
10,000 - 20,000	57 (60.6)	51 (56.0)
20,000 - 40,000	23 (24.5)	18 (19.8)
> 40,000	4 (4.3)	3 (3.3)
Educational status		
Literate	65 (69.1)	62 (68.1)
Illiterate	29 (30.9)	29 (31.9)
Working status		
Working women	7 (7.4)	10 (11.0)
House wife	87 (92.6)	81 (89.0)
Outcome of delivery		
Male child	52 (55.3)	52 (57.1)
Female child	42 (44.7)	39 (42.9)
Parity		
Primary Gravida	36 (38.3)	45 (47.3)
Multi Gravida	58 (61.7)	48 (52.7)
Mode of delivery		
SVD without complication	46 (48.9)	62 (68.1)
CS without complication	11 (11.7)	5 (5.5)
CS Elective	14 (14.9)	10 (10.9)
CS Emergency	23 (24.5)	14 (15.4)

SVD: Spontaneous vaginal Delivery, CS: Caesarian Section.

Relatives coming with the mother were also counselled.

A self-administered questionnaire was used to collect socio-demographic data. The questionnaire had 20 variables. The entire dataset was analysed using SPSS Version 20. Chi-square test was used for categorical variables. Mean and standard deviation (SD) were used to express categorical variables, frequencies and percentages were used for the rest of the data.

### Results

Of the 200 subjects initially enrolled, 185 were included in the data analysis, 91 among the intervention group (A) and 94 in the control (B). Rest were excluded due to missing data. The mean age in group A was 24.9±4.5 years and in group B it was 26.7±4.8. Demographic characteristics and clinical outcomes were noted (Table 1).

In group A, 46(50.5) women initiated breastfeeding within one hour of childbirth, while in group B 17 (18.08%) women did early initiation (p <0.001).

### Discussion

Literature has shown that individual maternal behaviours are amenable to change and that changes in individual

**Table-2:** Breastfeeding initiation and its relation with different variables of study.

Variables		Breastfeeding information			p-value
		1st hour	Within 24 hour	After 24 hour	
Income	5000-10000 (n=29)	14(48.27%)	11(37.93%)	4(13.79%)	0.054
	10000-20000(n=108)	36(33.33%)	44(40.74%)	28(25.92%)	
	20000-40000 (n= 41)	12(29.27%)	10(24.4%)	19(11.3%)	
	>40000(n=7)	1(14.3%)	3(42.8%)	3(42.8%)	
Education	Literate (n=127)	42(33.07%)	46(36.22%)	39 (30.7%)	0.792
	Illiterate (n=58)	21(36.21%)	22(37.93%)	15 (25.86%)	
Working status	Working (n=17)	3(17.65%)	6 (35.29%)	8(47.06%)	0.17
	House wife(n=168)	60(35.71%)	62(30.9%)	46(27.4%)	
Counselling	Routine counselling (n=94)	17(18.08%)	43(45.74%)	34(36.17%)	0.000*
	Special counselling (n=91)	46(50.55%)	25(27.47%)	20(21.98%)	
Mode of delivery	SVD without complication(n=108)	44(40.74%)	39(36.11%)	25(23.15%)	0.007*
	SVD with complication(n=16)	5(31.25%)	3(18.75%)	8(50%)	
	Elective c/s (n=24)	4(16.66%)	7(29.17%)	13(54.17%)	
	Emergency c/s(n=37)	10(27.03%)	19(51.35%)	8(21.62%)	
Outcome	Male baby(n=104)	34(32.7%)	39(37.5%)	31(29.8%)	0.907
	Female baby(n=81)	29(35.8%)	29(35.8%)	23(28.4%)	
Parity	Primigravida(n=79)	28(35.44%)	26(32.9%)	25(31.64%)	0.074
	Multigravida(n=106)	35(33.02%)	42(39.62%)	29(27.36%)	
Age (years)	≤19 (n=13)	5(38.5%)	5(38.5%)	3(23.07%)	0.98
	20-24(n=56)	20(35.71%)	17(30.4%)	19(33.93%)	
	25-29(n=69)	23(33.33%)	28(40.6%)	18(26.1%)	
	30-34(n=37)	12(32.43%)	14(37.8%)	11(29.73%)	
	35≥(n=10)	3(30%)	4(40.0%)	3(30.0%)	

\*significant p-values, SVD: Spontaneous vaginal delivery, C/S: Caesarean section. PKR: Pakistani Rupees.

behaviours collectively contribute to positive national trends in breastfeeding.<sup>3</sup>

According to a study, women exposed to a little breastfeeding information are very unlikely to breastfeed. Therefore, increasing the exposure to antenatal breastfeeding education would appear to impact

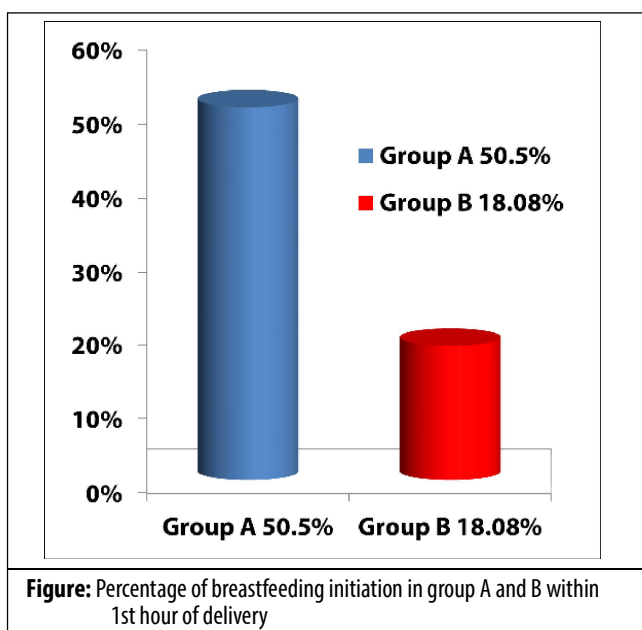
breastfeeding outcomes.<sup>8</sup>

A study at a tertiary care hospital in Rawalpindi showed that compared to the un-counselled group, the number of mothers who initiated breastfeeding immediately after birth were significantly higher ( $p < 0.046$ ) in the counselled group.<sup>9</sup>

Similarly, in our study significant relationship between antenatal counselling and early initiation of breastfeeding ( $p < 0.001$ ) was noted.

One important thing which was noticed in the control group was the separation of the baby from the mother for keeping the baby under observation for unexplained hours. This approach accounted for the huge gap in the initiation of breastfeeding within one hour. It has been recommended that mother and child should not be separated after delivery unless an acceptable medical reason for that exists.<sup>10</sup>

In the current study, mothers with complicated delivery started delayed breastfeeding ( $p < 0.001$ ). Similarly, in another study, the initiation and the prevalence of breastfeeding after discharge from hospital was investigated and compared to the mode of delivery. Infants delivered by vacuum extraction or by caesarean section (CS) started suckling later, they were more often given



formula prescription during the first 4 days, they were less often breast-fed during the night, and their mother's milk 'came in' later, but it did not affect the prevalence of breastfeeding after discharge. A sleepy infant not very willing to suckle was the most frequent nursing problem mentioned by the mothers 4 days after delivery. Failure to start breastfeeding occurred in only 2.2% of the women, and after 6 months, 52% were still breastfeeding their children.<sup>10</sup> Lactational problems were associated mostly with CS and primigravida.

In contrast, a study conducted in India to determine CS as a barrier for early initiation of breastfeeding found that 65.2% mothers initiated breastfeeding within 1 hour of delivery, and there was no significant difference between vaginal delivery and CS in early initiation of breastfeeding ( $p=0.35$ ).<sup>11</sup> The researchers were successful in overcoming the barrier by involving a lactation management counsellor in supporting mothers in early initiation of breastfeeding following CS. It underlines the fact that is a lack of supporting environment in our hospitals regarding breastfeeding, and that is why the results of the Indian study are different from our study.

The current study showed that the outcome of delivery, whether male or female child born, had no significant effect on early initiation of breastfeeding. An earlier study also mentioned that the expectation of a male child by the couple with the birth of a female child did not show any effect on the initiation of early breastfeeding in both groups.<sup>11</sup>

A descriptive study in India noted that awareness related to breastfeeding among mothers in the "counselled" group was better than those in the "un-counselled" group. Even in the "counselled" group, awareness among mothers with regard to correct breastfeeding technique and concept of continuing breastfeeding during illness in the baby was no different from those in the "un-counselled" group.<sup>12</sup>

Our results are in concurrence with the results of prior observational studies showing that support provided by clinicians through specific advice and practices during routine preventive visits is associated with higher rates of initiation of breastfeeding duration.<sup>13</sup>

The limitation of the current work is that it is a hospital-based study which means it has limited generalisability. A low sample size is also a limitation of the study. The rates of early initiation of breastfeeding were undesirably low

even in tertiary care hospitals. Identifying factors associated with these practices might be a strategy for optimising timely initiation in hospital-delivered babies.

## Conclusion

Focussed antenatal counselling was found to be helpful in motivating mothers to initiate early breastfeeding. Insufficient information on breastfeeding is a barrier for early initiation of breastfeeding. Breastfeeding counsellors are required for continuous counselling and to provide assistance in breastfeeding. Early handing over the baby to the mother immediately after birth and assistance in the establishment of breastfeeding is a vital component of post-natal care.

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