Original Research Article

"AN EXPLORATORY STUDY TO IDENTIFY THE FACTORS AFFECTING BREASTFEEDING PRACTICES AMONG MOTHERS WITH CAESAREAN SECTION DELIVERY IN SELECTED MATERNITY HOSPITALS OF ANAND-KHEDA DISTRICT, GUJARAT."

ABSTRACT

Introduction: The presented study to explore the factors affecting Breastfeeding practices among mothers with Caesarean section delivery in selected maternity hospitals of Anand-Kheda district, Gujarat was carried out by the researcher. **The objectives of the study were:** 1) To identify the factors affecting breastfeeding practices among mothers with Caesarean section delivery. 2) To find out the association of breastfeeding practices with selected demographic variables. **Research Methodology** : Research design selected for the present study was Non-Experimental Descriptive Exploratory Design. Sampling technique used in this study was Non-probability Consecutive sampling technique for selecting the 100 samples. The tool used in the study were demographic questionnaire, obstetric data, breastfeeding data and breastfeeding practice assessment by using standardized Jenson, Wallace, Kelsay's "LATCH SCALE." Validity of the tool was assessed by the 7 expert. Reliability of the tool was ascertained by using Karl Pearson's. Co-relation coefficient formula. **Data analysis and result:** The result of the study is analyzed on the basis of frequency as the values do not fit in the criteria of normal distribution, thus, the result is not generalized. On analyses, it was found that the factors which may affect the breastfeeding practice in mothers with caesarean section deliveries included preterm delivery of the baby (74%), mothers whose babies were admitted to NICU (28%), breastfeeding initiation in more than 6 hours (46%), mothers who had severe incision pain (21%). Moreover, babies who did not have skin to skin contact with their mother (15%) and also who were given pre-lacteal feed (26%) contributed to the factors that affected. Many factors which were found to improve the practice included the mothers who had proper antenatal care (48%), mother whose baby met her in less than 1 hour (46%) and initiated breastfeeding in that same time. Family support to breastfeed (75%) also lent towards good practice. The findings indicated that demographic variable paternal education (calculated value=23.33; table value=15.51) shows the significant association with breastfeeding practice. **Conclusion:** The study concluded that preterm delivered baby, admission of baby in NICU, more time in breastfeeding initiation, severe incision pain, lack of skin to skin contact, babies who received pre-lacteal feed were identified to be the factors which affected breastfeeding practices in mothers with Caesarean section delivery in this particular study.

Key Words: Breastfeeding practice, Caesarean section, Latch scale

INTRODUCTION

Breastfeeding is the process of feeding the infant, with the mother's milk either pumped or expressed. [1] Many literatures suggest that breastfeeding protects babies from disease like diarrhoea and acute respiratory infections, stimulates the immune systems & improves response to vaccinations. Breastfeeding promotes a child's overall development including cognitive, psychosocial, and emotional development. Breastfeeding creates a special bond between mother & baby which offers unique interaction and stimulation, along with the balance of protein and energy & micronutrients which helps in growth and development & gives a sense of well-being and security. It also benefits the mother's health by helping the uterus to contract early after delivery which reduces chances of prolonged bleeding. Breastfeeding also reduces the mother's risk of ovarian and breast cancer. [2] The delivery through caesarean sections is an operative approach replacing the natural process of delivery. Many literatures show that having a delivery by caesarean section is associated with non-initiation or delayed initiation of breastfeeding as well as with the discontinuation of exclusive breastfeeding or even total stopping of the process. Previous researches shows that a number of factors have been associated with breastfeeding including socioeconomic variables of the mother, cultural environment & the support the mother gets from the family and community. [3] Caesarean sections are effective in saving lives of parturient women & perinatal infants under abnormal labour process. Anyhow, it also comes with challenges, one of which is breastfeeding. Mothers with CS delivery have a lower rate in early initiation of breastfeeding & duration of breastfeeding. Mothers with CS delivery not only have delayed breastfeeding after delivery but also have lower rate of exclusive breastfeeding & a shortened duration of breastfeeding. Promoting breastfeeding has become one of the major initiatives for improving mother's and children's health, and therefore, it is necessary to understand the factors affecting breastfeeding, especially in mothers with CS delivery. [4] pregnancy brings a drastic change in women's life as she experience various changes going on in her body also she experience a great pleasure of a new life growing inside her body which is about to come. After pregnancy comes labour, Labour is the process where different changes takes in the genital organs for the expulsion of the baby.[15]

OBJECTIVES

1. To identify the factors affecting breastfeeding practices among mothers with Caesarean section delivery.
2. To find out the association of breastfeeding practices with selected demographic variables.

ASSUMPTIONS

1. Breastfeeding practices maybe affected by various factors in mothers with Caesarean section delivery.
2. There may be significant association of breastfeeding practices with selected demographic variables

MATERIAL AND METHODS

- **Research approach:** Quantitative approach
- **Research design:** Non-Experimental Descriptive Exploratory Study
- **Target population:** Mothers with Caesarean section delivery among selected maternity hospitals of Anand-Kheda district.
- **Sampling technique:** Non-probability consecutive sampling technique
- **Sample size:** 100 Mothers with Caesarean section delivery
- **Data collection tool:**

Section A:

I. **Demographic Data**

II. **Obstetrical Data**

Section B:

I. **Breastfeeding Data**

II. **Breastfeeding Practices Assessment:** Breastfeeding practices assessment will be assessed by using standardized Jenson, Wallace, Kelsay's "LATCH SCALE."

- **Data analysis:** Descriptive Statistics and inferential statistics
- **Criteria measured:** Identification of factors affecting breastfeeding practice in caesarean section mothers.

RESULTS AND DISCUSSION

1. Findings related to factors affecting breastfeeding practice

According to selected demographic variables, mothers having age 30-34 (42.9%); living in rural area (17.4%); religion is Hindu (57.1%); having no formal (28.6%), secondary (28.6%) and graduate (28.6%); paternal education up to primary education (57.1%); mother's occupation housewife (57.1%); type of work heavy (42.9); Income 5000-15000 (42.9%) and 15001-25000 (42.9%); number of children 1 and 2 (42.9% and 42.9%) respectively were found to have poor breastfeeding practice among the 7 samples out of 100 total samples who were found to have poor practice of breastfeeding.

From the obstetrical data mothers having intended pregnancy (71.4%); multipara mothers (57.1%); place of ANC private clinic (57.1%); number of ANC visit less than or equal to 4 (71.4%); EIBF counselling not given (71.4%); length of pregnancy 8 months (42.9%); Type of Caesarean section elective (85.7%); Pain at incision site mild (42.9%); number of simultaneous pregnancy singleton (71.4%); baby admitted to NICU (71.4%) were found to have poor breastfeeding practice among the 7 samples out of 100 total samples who were found to have poor practice of breastfeeding.

From the Breastfeeding data mothers who had not initiated breastfeeding within 1 hour (71.4%); baby met mother in more than 5 hours (71.4%); breastfeeding initiation hours 6-12 hours (42.9%), no skin to skin contact (57.1%), pre-lacteal feed given (71.4%), honey given (57.1%), not received help in

breastfeeding from staff (85.7%); don't have correct practice of breastfeeding (71.4%); mothers giving feeding in side-lying position (71.4%); who did not receive support from family (71.4%); who gave feeding on demand (42.9%) were found to have poor breastfeeding practice among the 7 samples out of 100 total samples who were found to have poor practice of breastfeeding.

2. Findings related to demographic variables of samples

With regards to age 13(13%) were of 18-21years, 25(25%) were of 22-25 years, 27(27%) were of 26-29 years and 35(35%) were 30-34 years; for residence, 46(46%) belonged to rural area and 54(54%) were from urban; with regards to religion, 49(49%) were Hindu, 17(17%) were Muslim, 30(30%) were Christian, and 4(4%) were others; in maternal education 17(17%) were Not formally educated, 24(24%) had primary education, 23(23%) had secondary education, 25(25%) were graduated and 11(11%) had further higher education; with regards to Paternal education, 6(6%) were Not formally educated, 21(21%) had primary education, 23(23%) had secondary education, 42(42%) were graduated and 8(8%) had further higher education; maternal occupation 13(13%) were government employee, 14(14%) were self-employed, 13(13%) were daily laborer, 51(51%) were housewives and 9(9%) had other occupation; in type of work, 20(20%) had heavy work, 27(27%) had moderate work 50(50%) had mild work and 3(3%) had sedentary lifestyle; with regards to monthly income 12(12%) had less than 5000 income, 30(30%) had 5000-15000 income, 30(30%) had 15001-25000 income and 28(28%) had income more than 25000; with regards to number of children 46(46%) had 1 child, 40(40%) had 2 children, 12(12%) had 3 children and 2(2%) had children equal to or more than 4.

3. Findings related to obstetrical data of samples

With regards to type of pregnancy, 79(79%) had intended pregnancy and 21(21%) had non-intended pregnancy; with regards to Parity, 52(52%) were Primipara and 45(48%) were Multiparous; in the matter of place of Antenatal care follow-up, 17(17%) went to public institution, 67(67%) went to private clinic, 5(5%) went to NGO, 12(12%) went to maternity center; with regards to number of ANC visits, 16(16%) had no visit, 36(36%) had less or equal to 4 visits, 48(48%) had greater than 4 visits; With regards to Early Initiation of Breastfeeding counseling, 72(72%) were counseled and 28(28%) were not counseled; in respect to length of pregnancy, 74(74%) had pregnancy duration of 7 months, 22(22%) had duration of 8 months and 4(4%) had duration of equal to or more than 9 months; concerning to type of Caesarean Section, 62(62%) had elective surgery while 38(38%) had emergency surgery; with regards to Pain at incision site, 29(29%) had mild pain, 50(50%) had moderate pain and 21(21%) had severe pain; with regards to Number of simultaneous pregnancies, 19(19%) had twin babies and 81(81%) had were singleton; with regards to admission of baby into the NICU, 28(28%) babies were admitted and 72(72%) weren't.

4. Findings related to Breastfeeding data of samples

With regards to the initiation of breastfeeding 45(45%) initiated feeding within 1 hour of delivery, 55(55%) did not initiate from which 2(3.63%) fed expressed breast milk, 22(40%) fed formula feed, 5(9.1%) gave other foods and 26(47.27%) did not give anything; concerning to hours of baby meeting mother, 46(46%) met within less than 1 hour, 30(30%) met within 1-3 hours, 13(13%) met within 6-10 hours and 11(11%) met in more than 10 hours, with regards to Breastfeeding initiation hours 44(45%) initiated in less than 1 hour, 26(26%) initiated within 1-6 hours, 14(14%) initiated within 6-12 hours, 16(16%) initiated in more than 12 hours, concerning to reason for not initiating breastfeeding within 1 hour of delivery, 29(29%) mothers were in recovery room, 11(11%) babies were in nursery, in 10(10%) mothers had no breast milk produced, 4(4%) mothers had severe pain; with regards to skin-to-skin contact of baby with mother, 85(85%) had maintained contact while 15(15%) did not maintain, concerning to Pre-lacteal feed, 26(26%) gave feed while 74(74%) did not; with regards to other liquids, 14(14%) gave other fluid, 4(4%) gave honey and 82(82%) gave nothing; concerning to breastfeeding help from the staff, 43(43%) got help and 57(57%) did not; with regards to correct practice of breastfeeding, 79(79%) had correct practice and 21(21%) did not have; concerning to the position of breastfeeding, 40(40%) used cradle position, 44(44%) used side-lying, 10(10%) had laid back and 6(6%) used other positions; with regards to support of family in exclusive breastfeeding, 75(75%) got support and 25(25%) did not; with regards to frequency of breastfeeding, 31(31%) fed on demand, 35(35%) fed 1 hourly, 28(28%) fed 2 hourly and 9(9%) had other feeding frequencies.

5. Findings related to Breastfeeding assessment

On assessment of breastfeeding practice, 7(7%) had poor practice, 39(39%) had moderate practice and 54(54%) had good practice.

6. Findings related to association of Breastfeeding practices with demographic variables (N=100)

The demographic variable-Paternal education was found to be having association with breastfeeding practices.

TABLES AND GRAPHS

Table 1. Frequency and percentages wise distribution of sample based on demographic variable such as age, residence of mother, religion, maternal education, paternal education, maternal occupation, type of work, monthly income of the family, and number of children

Sr. No	Demographic variables	Frequency(f)	Percentage (%)
1	Age of mother		
	□ 18-21	13	13%
	□ 22-25	25	25%
	□ 26-29	27	27%

	☐ 30-34	35	35%
2	Residence of mother		
	☐ Rural	46	46%
	☐ Urban	54	54%
3	Religion		
	☐ Hindu	49	49%
	☐ Muslim	17	17%
	☐ Christian	30	30%
	☐ Other	04	04%
4	Maternal Education		
	☐ Not formal education	17	17%
	☐ Primary	24	24%
	☐ Secondary	23	23%
	☐ Graduate	25	25%
	☐ Post-graduate and/or higher	11	11%
5	Paternal Education		
	☐ Not formal education	06	06%
	☐ Primary	21	21%
	☐ Secondary	23	23%
	☐ Graduate	42	42%
	☐ Post-graduate and/or higher	08	08%
6	Maternal Occupation		
	☐ Government employed	13	13%
	☐ Self employed	14	14%
	☐ Daily labourer	13	13%
	☐ Housewife	51	51%
	☐ Other	09	09%
7	Type of work (Mother)		
	☐ Heavy work	20	20%
	☐ Moderate work	27	27%
	☐ Mild work	50	50%
	☐ Sedentary lifestyle	03	03%
8	income of the family		
	☐ Less than 5000	12	12%
	☐ 5000-15000	30	30%
	☐ 15001-25000	30	30%
	☐ More than 25000	28	28%
9	Number of children		
	☐ 1	46	46%
	☐ 2	40	40%
	☐ 3	12	12%
	☐ ≥4	02	02%

Table 2. Analysis and interpretation of the obstetrical data

Sr no.	Obstetrical Data	Frequency(f)	Percentage (%)
1	Type of pregnancy		
	☐ Intended	79	79%
	☐ Unintended	21	21%
2	Parity		
	☐ Primipara	52	52%
	☐ Multipara	48	48%
3	Place of ANC follow up		
	☐ Public institution	17	17%
	☐ Private clinic	67	67%
	☐ NGO	5	5%
	☐ Maternity centre	11	11%
4	Number of ANC visit		
	☐ No visit	16	16%
	☐ Less or equal to 4	36	36%
	☐ Greater than 4	48	48%
5	Was Early Initiation of Breastfeeding counselling given during Antenatal visit?		
	☐ Yes	72	72%
	☐ No	28	28%
6	Length of Pregnancy		
	☐ 7 months	74	74%
	☐ 8months	22	22%
	☐ ≥9 months	4	4%
7	Type of Caesarean Section		
	☐ Elective	62	62%
	☐ Emergency	38	38%
8	Pain at incisional site		
	☐ Mild (1-3)	29	29%
	☐ Moderate (4-7)	50	50%
	☐ Severe (8-10)	21	21%
9	Number of simultaneous pregnancies		
	☐ Twin	19	19%
	☐ Singleton	81	81%
10	Baby admitted to NICU		
	☐ Yes	28	28%
	☐ No	72	72%

Table 3. Analysis and interpretation of the breastfeeding data

Sr. no.	Breast feeding data	Frequency(f)	Percentage(%)
1	Breastfeeding given?	45	45
	☐ Yes	55	55
	☐ No		
	If No – ☐ Expressed	2	2%
	☐ Formula	22	22%
	☐ Any other	5	5%
	☐ None	27	27%
2	Baby met mother after Caesarean Section (hours)		
	☐ Less than 1	46	46%
	☐ 1-5	30	30%
	☐ 6-10	13	13%
	☐ Greater than 10	11	11%
3	Breastfeeding initiation after Caesarean section (hours)		
	☐ Less than 1	44	44%
	☐ 1-6	26	26%
	☐ 6-12	14	14%
	☐ Greater than 12	16	16%
	☐ Not given	0	0%
4	Reason for not initiating breastfeeding within an hour after delivery		
	☐ Mother was in recovery room	29	29%
	☐ Baby was in nursery	11	11%
	☐ Breast milk was not produced	10	10%
	☐ Mother had severe pain	4	4%
5	Skin to skin contact of mother and baby?		
	☐ Yes	85	85%
	☐ No	15	15%
6	Pre-lacteal feed?		
	☐ Yes	26	26%
	☐ No	74	74%
7	Liquids other than feed		
	☐ Other fluid	14	14%
	☐ Honey	4	4%
	☐ Nothing	82	82%
8	Did you need any kind of help from staff?		
	☐ Yes	43	43%
	☐ No	57	57%
9	Correct practice of Exclusive Breastfeeding?		
	☐ Yes	79	79%
	☐ No	21	21%
10	Position of breastfeeding usually followed		
	☐ Cradle	40	40%
	☐ Side-lying	44	44%
	☐ Laidback	10	10%
	☐ Others	6	6%
11	Others Support of family in Exclusive		

	Breastfeeding? ☐ Yes ☐ No	 75 25	 75% 25%
12	Frequency of breastfeeding ☐ On demand ☐ 1 hourly ☐ 2 hourly ☐ Others	 31 35 28 9	 31% 35% 28% 9%

Table 4. Shows that on assessment of breast-feeding practice using the standardized "LATCH SCALE", 7(7%) with poor practice, 39(39%) with moderate practice, 54(54%) with good practice of breastfeeding.

Sr no.	LATCH SCALE SCORE	Frequency(f)	Percentage (%)
1.	Breast feeding practice assessment ☐ Poor ☐ Moderate ☐ Good	 7 39 54	 7% 39% 54%

Fig. 1. Analysis and interpretation of breastfeeding practice using the latch scale (n=100)

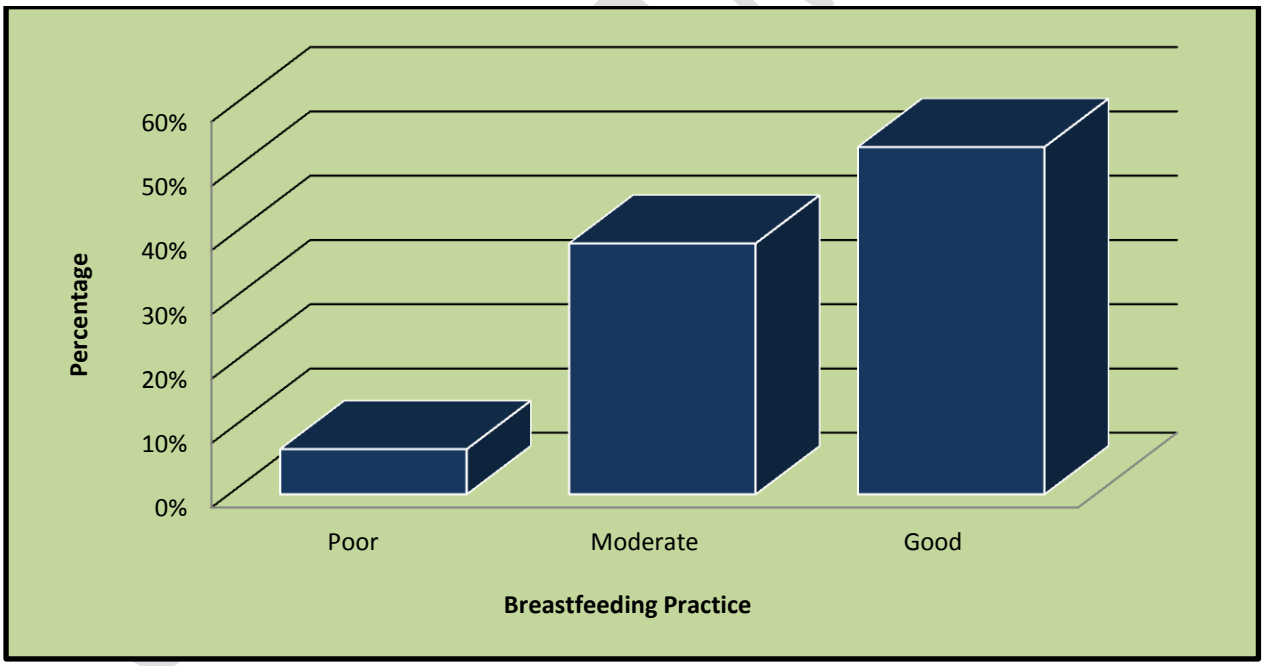

Table 5. Analysis and interpretation of data related to association of breastfeeding practice with selected demographic variable in non-experimental group

Sr. No	Demographic variables	Frequency (f)	X^2		df	Association
			Calculated Value	Table Value		
1	Age of mother ☐ 18-21 ☐ 22-25	 13 25	7.55	12.59	6	Not Significant

	□ 26-29 □ 30-34	27 35				
2	Residence of mother □ Rural □ Urban	 46 54	2.43	5.99	2	Not Significant
3	Religion □ Hindu □ Muslim □ Christian □ Other	 49 17 30 04	12.15	5.99	2	Not Significant
4	Maternal Education □ Not formal education □ Primary □ Secondary □ Graduate □ Post-graduate and/or higher	 17 24 23 25 11	10.96	15.51	8	Not Significant
5	Paternal Education □ Not formal education □ Primary □ Secondary □ Graduate □ Post-graduate and/or higher	 06 21 23 42 08	23.33	15.51	8	Significant
6	Maternal Occupation □ Government employed □ Self employed □ Daily labourer □ Housewife □ Other	 13 14 13 51 09	12.58	15.51	8	Not Significant
7	Type of work (Mother) □ Heavy work □ Moderate work □ Mild work □ Sedentary lifestyle	 20 27 50 03	7.17	12.59	6	Not Significant
8	Income of the family □ Less than 5000 □ 5000-15000 □ 15001-25000 □ More than 25000	 12 30 30 28	6.34	12.59	6	Not Significant
9	Number of children □ 1 □ 2 □ 3 □ ≥4	 46 40 12 02	12.53	12.59	6	Not Significant

CONCLUSION

The present study was designed to identify the factors affecting the breastfeeding practices in mothers with caesarean section delivery in selected maternity hospitals of Anand-Kheda district, Gujarat.

The result of the study is analyzed on the basis of frequency as the values do not fit in the criteria of normal distribution, thus, the result is not generalized. On analyses, it was found that the factors

which may affect the breastfeeding practice in mothers with caesarean section deliveries included preterm delivery of the baby, mothers whose babies were admitted to NICU, breastfeeding initiation in more than 6 hours, mothers who had severe incisional pain. Moreover, babies who did not have skin to skin contact with the mother and also who were given pre-lacteal feed contributed to the factors that affected. Many factors which were found to improve the practice included the mothers who had proper antenatal care, mother whose baby met her in less than 1 hour and initiated breastfeeding in that same time. Family support to breastfeed also lent towards good practice.

The findings indicated that the demographic variable paternal education is found to be having association with Breastfeeding practice.

Ethical Approval

The study was approved by the institutional ethical committee of Dinsha Patel College of Nursing, research committee. There are total 15 members in the committee from various departments. The Ethical approval reference number is DPCN/2nd IEC/2020-21/14 and a formal written permission was gathered from the authority of or Principal of Institute prior to data collection.

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