"AN EXPLORATORY STUDY TO IDENTIFY THE FACTORS AFFECTING BREASTFEEDING PRACTICES AMONG MOTHERS WITH CAESAREAN SECTION DELIVERY."

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ABSTRACT

Introduction: The study wasconducted to explore the factors affecting Breastfeeding practices among mothers with Caesarean section delivery in selected maternity hospitals of Anand-Kheda district, Gujarat.

Objectives: 1) To identify the factors affecting breastfeeding practices among mothers with Caesarean section delivery. 2) To verify the existence of an association between breastfeeding practices and sociodemographic variables.

Research Methodology: Research design of the study was Non-Experimental Descriptive Exploratory Design. The study employed Non-probability Consecutive sampling technique to recruit a sample of 100 women. 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 experts. Reliability of the tool was 0.76 and ascertained by using Karl Pearson's co-relation coefficient formula.The result of the study is analysed on the basis of frequency as the values do not fit in the criteria of normal distribution, thus, the result is not generalized.

Results: 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 suggests that, preterm delivered baby, admission of baby in NICU, more time in the recovery room, severe incisional pain, lack of skin-to-skin contact, availability of pre-lacteal feed and lack of support from the maternity ward staff were perpetuated breastfeeding practices in mothers with Caesarean section delivery in this particular study.

Key Words: Breastfeeding practice, Caesarean section, Latch scale, Gujarat, Factors

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INTRODUCTION

Breastfeeding is the process of feeding the infant, with the mother's milk either pumped or expressed. [1] Literatures suggest that breastfeeding protects babies from disease like diarrhoea and acute respiratory infections, stimulates the immune systems and improves response to vaccinations. Breastfeeding promotes a child's overall development including cognitive, psychosocial, and emotional development. Breastfeeding creates a special bond between mother and baby which offers unique interaction and stimulation, along with the balance of protein and energy and micronutrients which helps in growth and development and 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. Most literature 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.Previous researches shows that a number of factors have been associated with breastfeeding including socioeconomic variables of the mother, cultural environment and the support the mother gets from the family and community.[3] Caesarean sections(CS) are effective in saving lives of parturient women & perinatal infants under abnormal labour process. However, also comes with challenges, one of which is breastfeeding. Mothers with CS delivery not only have delayed breastfeeding after delivery but also have lower rate of exclusive breastfeeding and 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 who have undergone CS delivery. A post-caesarean woman needs unique care and support for breastfeeding. These care needs may vary from one woman to another depending on some specific factors.

OBJECTIVES

1. To identify the factors affecting breastfeeding practices among mothers with Caesarean section delivery.
2. To verify the existence of an association between breastfeeding practices and sociodemograhpic variables.

ASSUMPTIONS

1. Breastfeeding practices maybe affected by various factors in mothers with Caesarean sectiondelivery.
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:

- **Breastfeeding Data**
- **Breastfeeding Practices Assessment:** Breastfeeding practices assessment will be done by using standardized Jenson, Wallace, Kelsay's "LATCH SCALE."
- **Delimitations of study:**

1. The study is limited to mothers below 35 years and above 21 years of age, having no illness or complications.

2. The study is limited to maternity hospitals of Anand-Kheda district only.

- **Data collection method:**

Written consent was taken from each participant to participate in the study after explanation of the study purpose and procedure. Questions were asked after proper build up of rapport. The questions were asked by the researchers and the responses were marked in the tool. Details from the mothers who had undergone Caesarean section and are admitted in the hospital were taken for the participation.

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

RESULTS

1. **Findings related to demographic characteristics of samples**

Majority of mothers (35%) were within the age range of 30-34 years while small proportion (13%) were young mothers i.e., 18-21 years. The samples comprised of slightly above half (54%) from urban habitat. Most of the mothers (49%) belonged to Hindu religion and majority (83%) had some formal education. Almost half of the samples were housewives and half (50%) had mild work to do. Among the samples, (46%) had 1 child.

Tab.1 Frequency and percentages wise distribution of sample based on demographic characteristics **(N=100)**

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 ☐ 5000-15000 ☐ 15001-25000 ☐ More than 25000	12 30 30 28	12% 30% 30% 28%
9	Number of children ☐ 1 ☐ 2 ☐ 3 ☐ ≥4	 46 40 12 02	 46% 40% 12% 02%

2. Findings related to obstetrical characteristics of samples

Obstetric data showed that most (79%) of participants had planned their pregnancy and almost half (52%) of the mothers were primiparous. Most (67%) had visited private clinic for their ANC follow up and (48%) visited clinic for more than 4 times. Majority (72%) of samples received breastfeeding counselling during their pregnancy period. Most (62%) of the Caesarean sections were elective and some (28%) of the mothers' babies were admitted to NICU.

Tab 2Analysis and interpretation of the obstetrical data **(N=100)**

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%

3. Findings related to Breastfeeding characteristics of samples

It was found that almost half (46%) mothers breastfed their baby. However, (44%) mothers initiated feeding in less than 1 hour after delivery. Among the mothers who had delayed initiation of breastfeeding, the factors responsible were found to be separation of mother from baby, baby admitted to NICU, failure of breasts to produce breastmilk. Most (85%) of mothers succeeded in maintaining skin to skin contact with their baby. Most (74%) did not give any kind of Pre-lacteal feed and 79% mothers had correct practice of Breastfeeding. 75% mothers had support of their family in breastfeeding and 35% mothers fed their baby 1 hourly.

Tab 3 Analysis and interpretation of the breastfeeding data **(N=100)**

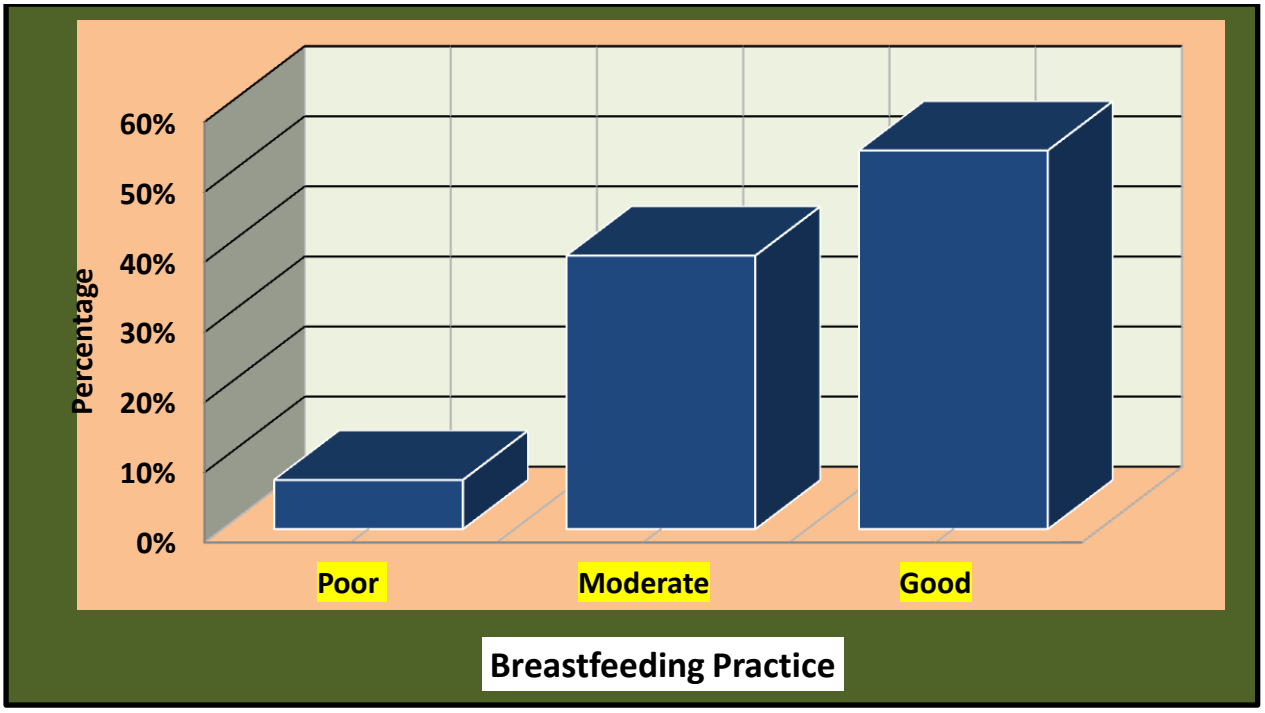
Sr. no.	Breast feeding data	Frequency(f)	Percentage(%)
1	Breastfeeding given?		
	☐ Yes	46	46
	☐ No	54	54
	If no – □ Expressed	2	2%
	□ Formula	22	22%
	□ Any other	5	5%
	□ None	27	27%
2	Baby met mother after Caesarean Section (hours)		
	☐ Less than 1	46	46%
	☐ 1-5	30	30%
	☐ 6-10	13	13%
	☐ Greater than10	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	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%

4. 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.

Fig. 1 Analysis and interpretation of breastfeeding practice using the latch scale



Tab 4 Analysis and interpretation of data related to association of breastfeeding practice with selected demographic variable in non-experimental group **(N=100)**

Sr. No	Demographic variables	Frequency (f)	X^2		df	Association
			Calculated Value	Table Value		
1	Age of mother ☐ 18-21 ☐ 22-25 ☐ 26-29 ☐ 30-34	 13 25 27 35	7.55	12.59	6	Not Significant
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

DISCUSSION

Questions were asked to mothers based on the tool and their response was marked. The study is limited to selected maternity hospitals of Anand-Kheda districts of Gujarat state.

A study conducted at Obstetrics and Gynaecology Department in the Obstetrics and Gynaecology Hospital at Minia University identified a good new-born status and having an antenatal care as positive predictors, while the negative predictors were higher level of mother education, higher gravidity, and giving glucose to new-born in accordance with the initiation of breastfeeding.[4]Another study conducted in South Gondar Zone Hospitals Northwest Ethiopia concluded that type of

pregnancy, professional guidance, had four or more antenatal care and breastfeeding experience were significantly associated with early initiation of breast feeding among mothers who delivered by caesarean section.[2] A study conducted to explore the factors affecting breastfeeding behaviours in women after Caesarean section found that the challenges for breastfeeding after caesarean sections included physical discomfort, knowledge and skills deficit of breastfeeding, lactation deficiency, and lack of knowledge and coping skills in managing their depressive mood after caesarean sections.[5]

All above research studies and also other studies, suggest that there are factors that affect the initiation of breastfeeding in mothers who have undergone Caesarean section delivery. This study reflects on this and is done to explore these factors in selected maternity hospitals of Anand-Kheda district of Gujarat state. The limitation of our study is that it includes only some of the maternity hospitals.

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.

CONCLUSION

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. Future large-scale studies can be conducted taking under consideration more maternity hospitals. Further more studies can also be conducted on improvement of breastfeeding in mothers with Caesarean section delivery.

RECOMMENDATION

1. Similar study can be replicated on a larger sample to increase validity and generalization of findings.
2. A study can be conducted to compare the factors affecting breastfeeding practices in mothers with Caesarean section and vaginal delivery.
3. A Comparative study can be conducted to assess the factors affecting breastfeeding practices between primipara and multipara mothers.
4. A study can be conducted to find out the influence of mode of delivery on breastfeeding initiation. •
5. An analysis can be conducted to understand breastfeeding behaviour and associated factors.

ETHICAL APPROVAL

The study was approved by the institutional ethical committee of Dinsha Patel College of Nursing, research committee. There is 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.

CONFLICT OF INTEREST: Nil

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