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A Study to assess the Effectiveness of Breastfeeding support on Breastfeeding practices among Postnatal Primigravida mothers

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ABSTRACT

Background: Breastfeeding is one of the natural, and nutritional food for a baby from birth. Breast milk provides nutrients, antibodies, bonding and stimulation between mother and baby all the Babies must be on six months of exclusive breastfeeding. Breastfeeding support is very important it should from the initial period to increase the breastfeeding rates. In India, only 44.6% of mothers initiate breastfeeding within one hour of birth despite the fact that about 78.7% of mothers deliver in institutions. Skilled counselling services will ensure the mothers and families to receive the support, along with the information about the lactation management. Breastfeeding counselling can help mothers to build confidence while respecting their individual circumstances and choices. Counselling will empower women to overcome challenges and helps in the feeding problems and to reduce the practices that may affects the with optimal breastfeeding, such as the giving unnecessary liquids, foods, and breastmilk substitutes to infants and young children. The breastfeeding Support may be given by either by professional or lay/peer supporters, or a combination of both. Breastfeeding Support must be given face-to-face, via telephone or digital technologies, or a combination and may be moreeffective when delivered on a schedule of four to eight visits.

Methods: The total sample included in the study was 120 primigravida postnatal mothers. whoare admitted in the postnatal ward. A non-probability purposive sampling technique was used and Quasi experimental post test only control group design was adopted for the study .Breastfeeding assessment scale was used daily till 4th day before getting discharge for monitoring of breastfeeding practices in the postnatal primigravida mothers.

Result: The study finding revealed that out of 120 postnatal primigravida mothers, in the first day 42% of them had poor breastfeeding practices,45% were in average in 2nd day 48% in the 3rd day and 62% of the mother were in the good practices in the experimental group. In t control group, maximum mothers were in the 65% to 50 % from 1 to 3day of the breastfeeding practice. Paired t test was used to assess the breastfeeding practices within the experimental group. In that mean value of day1 was 66.day 2 is 76.4,day 3 is 86.2 and day 4 id 99.2 respectively. The effectiveness of breastfeeding support was assessed by using the z test for within and between the group the z value are on day 2 the value was Z= 1.978 , Day 3 Z=6.307 and on day 4 Z=4.409 at p value is 0.000 this indicate on all the day there was a significant difference between the experimental and control group in breastfeeding practices and also within the group there was an increase in the mean value on each day .

Conclusion: The study conclude that every postnatal mother are in need of breastfeeding support throughout the lactation period. The breastfeeding support will help the mother to increase the confidence on lactation and also helps in the maintenance of Exclusive breastfeeding in the infants.

Keyword: Breastfeeding support, effectiveness ,Breastfeeding practice, postnatal ,Primigravida mothers.

INTRODUCTION:

Breast feeding is one of the important fundamental needs of the child and it helps in the

physical and mental development of the child. According to the WHO, Breastfeeding is beneficial for both the mother and the infant. Breastfeeding should be initiated within 1hour of birth to provide ideal food for the better growth and development of infants.[1] Breastfeeding helps in the decrease in the infant risk of infections, atopic dermatitis, asthma, obesity, diabetes types 1 and 2, childhood leukaemia, sudden infant death syndrome, necrotizing enterocolitis and also to increase the higher Intelligence Quotient and academic performance at 6.5 years of age [7–9]. Breastfeeding practice will also help to decrease the maternal risks of diabetes type 2, breast and ovarian cancers, and postpartum depression.[2]

Early discontinuation of breastfeeding will occurs in the mothers due to difficulties in breastfeeding. Women will have lack of confidence in their ability to breastfeed because they considered that their infants had difficulty in breastfeeding or were not satisfied. The other factors related with early termination of breastfeeding is the women return to work and maternal depression. Early Initiation and duration of breastfeeding depend on the health care professionals who provide breastfeeding education, and also conducive birthing environment which will helps in the promoting of breastfeeding.[3]

NEED OF THE STUDY:

According to UNICEF, only 39 % of infants 0- 5 month-old in the developing world are exclusively breastfed (EBF). About 1.45 million lives are lost due to suboptimal/breastfeeding in developing countries per year [3,4] . According to NFHS 4 data for 15 states from India shows rise in institutional deliveries of 82.2%, with initiation of early breastfeeding rate is only 47.7%, and also exclusive breastfeeding rate is only 40% for the first six months of life.[4]

The reasons for low rate of suboptimal breastfeeding are Due to lack of proper information to mothers about the lactation management , inadequate healthcare support throughout the lactation process, inability of the healthcare providers to help the mothers who are experiencing breastfeeding difficulty due to their busy schedule, Increase in the propagandain the promotion of baby foods by the commercial industry and lack of proper support channels at the community level and at workplace lack in the maternity entitlements and crèches for the lactating mothers. Apart from this, Cultural belief also appear to be important like breastfeeding initiation is delayed because of the belief that mother's milk does not "come" at the time of childbirth etc.[6]

Exclusive breastfeeding (EBF) for the period of six months will be difficult due to maternal malnutrition. Breastfeeding rates decrease with inadequate assistance to nursing mothers. Hence, education and support should start as early as possible for lactation and breastfeeding mothers. Provision of health education is very important during the prenatal period, in the hospital during first week postpartum, and repeated, continual support in the mother's home after discharge .[7]

According to Centers for Disease Control and Prevention a nationwide survey conducted in 2012, of the infants who were 19-35 months of age, 74% were breastfed at birth, 43% were breastfed at 6 months, 21% were breastfed at 12 months, 32% were exclusively breastfed at 3 months, and 12% were exclusively breastfed at 6 months. Various international organization such as UNICEF, WHO, WABA along with the scientific community strongly recommended initiating breastfeeding within an hour of birth. Many studies shows that early initiation can prevent 22% of all deaths among babies below one month, in developing countries.[8]

Most problems in feeding the baby are related to the insufficient knowledge, inappropriate routines and lack of confidence of mothers and it can be easily managed or prevented by prenatal education, anticipatory guidance and adequate support.[9]

Statement of the study

"A Study to assess the Effectiveness of Breastfeeding support on Breastfeeding practicesamong Postnatal Primigravida mothers"

Objective of the study.

1. To assess the effectiveness of breastfeeding support on breastfeeding practices among Postnatal Primigravida mothers.
2. To find out the significant association of breastfeeding practice score with selected

demographic variables in the Experimental group.

Hypothesis:

H10-There is no significant effectiveness of Breastfeeding support on breastfeeding practicesamong postnatal primigravida mothers.

H1-There is a significant effectiveness of Breastfeeding support on breastfeeding practices amongpostnatal primigravida mothers.

H20-There is no significant association of breastfeeding practice score with selected demographicvariables in the experimental group.

H2- There is significant association of breastfeeding practice score with selected demographicvariables in the experimental group.

Materials and methods:

Research Approach& Research Design: The study adopted was Quantitative approach. A Quasi experimental post- test only control group design was adopted in this study to assess the breastfeeding practices among postnatal primigravida mothers.

Setting of the Study: The study data was collected from MGM Medical College and Hospital, Postnatal ward, Aurangabad.

Population:

Target population: Primipara mothers

Accessible population: Primipara Mothers admitted in the PNC ward of the selected Hospital.

Sample and Sampling Technique: A sample consists of a subset of the units that compose the population. This study comprises of 120 Primigravida mothers who fulfilled the sampling criteria.

Sampling technique: Non probability purposive sampling

Criteria for Sample SelectionInclusion Criteria:

1. Mothers who are willing to participate and co-operative
2. Mothers with the singleton baby.
3. Mothers who can able to understand Hindi and Marathi.
4. Mothers who are without any breastfeeding complication.

Exclusion criteria:

1. Mothers with any obstetrical complication (PIH,GDM,etc)
2. Neonate with any complication (preterm, LBW, any anomalies etc)

Description of the tool:

1. **Postnatal mothers**- Age of the mother, mode of delivery, Types of anesthesia, Time of initiation of breastfeeding, caregiver, education of the mother, Type of diet, religions, sex of the baby and source of information.
2. **Breastfeeding Assessment Tool**

Breast feeding assessment tool is the self-reported which is used to measure the breast feeding practices and experience of mother and also the baby health status. It consists of total 25 questions divided in two components between mother and baby.

It is measure in 5-point Likert scale ranges from Never to Always. The score ranges from 1-5. The total score is 125. The highest scores indicate good practice, experience and outcome and lowest score indicate poor practices experiences and outcome of baby.

SCORE INTERPRETATION OF PRACTICE:

Level	**Score**	**Percentage**
GOOD	92-125	74-100

AVERAGE	59-91	47-72
POOR	25-58	20-45

DATA COLLECTION METHOD:

- After the approval of ethical committee and hospital, the study was explained to the mother and assurance will be given that the detail will be kept confidential.
- Written consent was taken. Based on the inclusion criteria study sample was collected by using non probability purposive sampling technique. Quasi experimental research design was adopted. The data was collected from February 2021 to May 2021. During the postnatal period after delivery on the first day health education about breastfeeding was given and also breastfeeding support like proper position during breastfeeding and latching of the baby and helped them during minor problems in the breastfeeding etc. till for the period of 4 days to the mothers. The control group received the routine care and both the group were analysis for the breastfeeding practices.

ETHICAL CONSIDERATION

The propose study was conducted after the approval of Institutional Ethics Committee of Mahatma Gandhi Mission Mother Teresa College of Nursing, Aurangabad. Permission to collect the data was obtained from MGM Medical College and Hospital of Aurangabad. Oral Consent of each mother was obtained before starting the data collection and their information was kept confidential.

Data analysis and interpretation:

The study results were analyzed by using Descriptive and inferential statistics. For the analysis of demographic variable frequency and percentage was used. To compare the result within the group paired t test was used. To find out the effectiveness of breastfeeding support on breastfeeding practice Two sample z test was applied. To find out the association of breastfeeding practice score with the demographic variable Chi- square test was applied.

RESULTS

Table No - 1 Demographic characteristics of Postnatal Primigravida mothers. (N=120)

S.NO	Demographic variables	Experimental		Control	
		Frequency	Percentage	Frequency	Percentage
1	**Age**				
	18-22 years	15	25	19	32
	23-26 years	26	43	22	37
	26-30 years	12	20	10	17
	> 30 years	7	12	9	15
2	**Mode of delivery**				
	a)Vaginal	32	53	34	57
	b) Caesarean	28	47	26	43
	c)Instrumental	0	0	0	0
3	**Types of Anesthesia**				

	a) General	0	0	0	0
	b) Spinal	28	47	26	43
	c)Local	12	20	16	27
	d) None	20	33	18	30
4	**Time of initiation of breastfeeding**				
	a) Less than half an hour	32	53	34	57
	b) After half an hour	28	47	26	43
5	**Caregiver**				
	a) Husband	0	0	0	0
	b) Mother	41	68	39	65
	c)Mother-in-law	12	20	11	18
	d)Other	7	12	10	17
6	**Education of mother**				
	a) Illiterate	12	20	16	27
	b)Primary	18	30	23	38
	c)Secondary	20	33	5	8

	d) Higher Secondary	7	12	9	15
	e) Graduation & above	3	5	7	12
7	**Types of Diet**				
	a) Vegetarian	36	60	39	65
	b) Mixed	24	40	21	35
8	**Religion**				
	a) Hindu	36	60	28	47
	b)Christian	10	17	15	25
	c) Muslim	14	23	17	28
	d) Others	0	0	0	0
9	**Sex of the Baby**				
	a)Male	26	43	29	48
	b) Female	34	57	31	52
10	**Source of Information about breastfeeding**				
	a) Mass Media Communication	38	63	32	53
	b) Health care personnel	22	37	28	47
	c) Attended any classes on postnatal care	0	0	0	0

Table No-1 shows that maximum mothers 43% and 37 % belong to 23-26 years in age group. most of the mothers are undergone vaginal delivery 53% and 57 % in the mode of delivery, in the types of anesthesia most of the mother are in the spinal 47 and 43%. Time of initiation of breastfeeding most of them initiated the breastfeeding g within half an hour 53and 57%. In caregiver maximum mothers accompany with the mothers 68% and 65%. In the education most of the mother are in the primary education 38% and secondary education is 33%.In types of diet most of the mothers are in vegetarian 60% and 65%.in religion most of the mothers are belongs to Hindu. In sex of the baby most of the baby are female 57 % and 53% in both the group. In source of information most of the mother received the information about breastfeeding from the mass media communication.

Table 2:

Frequency and percentage distribution of level of breastfeeding practice score of experimentaland control group. N=120

Group	**Postnatal breastfeeding practices**	**Day1**		**Day2**		**Day3**		**Day4**	
		Freq	**%**	**Freq**	**%**	**Freq**	**%**	**Freq**	**%**

Experimental Group	Good (score 92-125)	11	18 %	21	35 %	**29**	**48 %**	**37**	**62 %**
	Average (score 59-91)	24	40 %	**27**	**45 %**	22	37 %	23	38 %
	Poor (score 25-58)	**25**	**42 %**	12	20 %	9	15 %	0	0
Control group	Good (score 92-125)	5	8 %	9	15 %	11	18 %	18	30 %
	Average (score 59-91)	16	27 %	14	23 %	19	32 %	**26**	**43 %**
	Poor (score 25-58)	**39**	**65 %**	**37**	**62 %**	**30**	**50 %**	16	27 %

The tables 2 states that, in experimental group, on day1, 25(42%) of the mother are in the poor level of breast feeding practices. On day2, 27(45 %) of the postnatal mothers are in the level of average breastfeeding practices, On day3, 29 (38 %) of the postnatal mothers had good level of breastfeeding practices. On the day 4 37(64%) of the mother are in the good level of breastfeeding practice. In control group on day1, 39(65%) of the mother are in the poor level of breast feeding practices. On day2, 37(62%) of the postnatal mothers are in the level of poor breastfeeding practices, On day3, 30 (50 %) of the postnatal mothers had ppor level of breastfeeding practices. Onthe day 4 25(64%) of the mother are in the average level of breastfeeding practice. It indicates thatthe breastfeeding practices among postnatal mothers improved remarkably after breastfeeding support in the experimental group than the control group.

Table 3: Paried 't' test for the effectiveness of Breastfeeding support on PostnatalBreastfeeding practices score among primigravida mothers within the Experimental group

N=120

	Mean	**SD**	**T**	**Df**	**p-value**
Day1	66	15.8	3.16	59	0.001.
Day2	76.4	15.2	3.99	59	0.001
Day3	86.2	16.08	4.14	59	0.001
Day4	99.2	14.3	5.72	59	0.001

The tables 3 reveals that Paired t-test was used to assess the effectiveness of breastfeeding support on breastfeeding practices among postnatal primigravida mothers in Experimental group. Mean score of the Postnatal breastfeeding practices score on day1 was 66 which increased to 76.4, 86.2 and 99.2 on day2, day3 and day4. The T-values for this test were 3.16 3.99,4.14 and 5.27. So the Corresponding p-value was small (less than 0.05), the null hypothesis is rejected and research hypothesis was accepted. Mean score of the Postnatal breastfeeding practices scores on day2, day3 and day4 were significantly higher than that on day1. It is evident that the breastfeeding support is significantly effective in improving Postnatal breastfeeding practices among postnatal primigravid mothers.

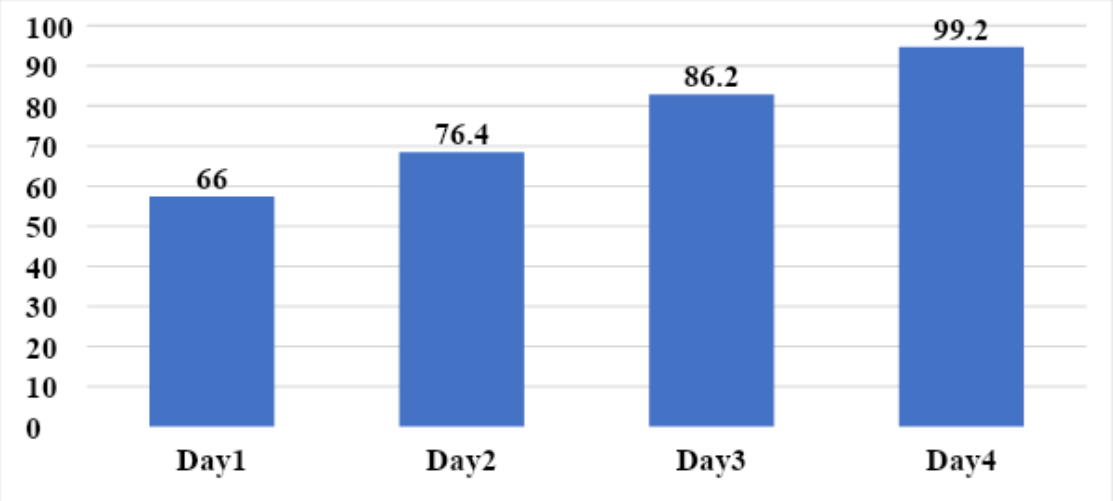

Fig: Day-wise Mean difference of Breastfeeding practice score of within the Experimental group.

Fig: 1. Day-wise Mean score of post natal breastfeeding practices of the post natal mother within and Between the Experimental group and Control group.

Table 4:Two sample z test for the comparison of mean differenceof Postnatal breastfeeding practices scores among primigravida mothers within and between Experimental and control group N=120

Time point	Group	Mean	Mean difference	Z	p-value
Day2	Experimental	76.4	10.4	1.978	0.000 S
	Control	64	7.0		
Day3	Experimental	86.2	20.2	6.307	0.000 S
	Control	71	14.0		
Day4	Experimental	99.2	33.2	4.409	0.000 S
	Control	81	24.0		

The table 4 reveals that, two-sample z-test was used for the comparison of mean difference in breastfeeding practices scores among postnatal primigravid mothers experimental and control group. On day2, Mean of the breastfeeding practices scores difference in experimental group was 10.4 which was 7 in control group. On day3, Mean breastfeeding practices scores difference in experimental group was 20.2 which was 14.0 in control group. On day4, mean breastfeeding practices scores difference in experimental group was 33.2 which was 24.0 in control group. The z-values were 1.97, 6.3 and 4.4 The Corresponding p- values were small (less than 0.05), the null hypothesis is rejected and the research hypothesis was accepted. Mean difference in breastfeeding practices scores in experimental group was significantly higher than control group. It is evident that breastfeeding support is significantly effective in improving the breastfeeding practices among postnatal primigravida mothers.

Table 5: Association of the breastfeeding practice score with the postnatal motherdemographic variables. N=120

Demographic variables	Experimental			chi-square	p value	Remarks
	Poor	Average	Good			
Age				5.3749	.146313.	NS
a)18-22 years	10	5	0			
b)23-26 years	22	4	0			
c)26-30 years	9	3	0			
d)> 30 years	3	4	0			
Mode of delivery						
a)Vaginal	10	22	0	5.8189.	.015855.	S
b) Casearean	18	10	0			
c)Instrumental	0	0	0			
Types of Anesthesia						
a) General	0	0	0	1.014.	0.602291	NS
b) Spinal	13	15	0			
c)Local	7	5	0			
d) None	8	12	0			
Time of initiation of breastfeeding						
a) Less than half an hour	9	19	0	4.4495	0.034911	S
b) After half an hour	19	13	0			
Caregiver						
a) Husband	0	0	0	0.235	0.889159	NS
b) Mother	20	21	0			
c)Mother-in-law	5	7	0			
d)Other	3	4	0			

Education of mother						
a) Illiterate	8	4	0	5.8865	0.207788	NS
b)Primary	7	11	0			
c)Secondary	10	10	0			
d) Higher Secondary	1	6	0			
e) Graduation & above	2	1	0			
Types of Diet						
a) Vegetarian	17	19	0	0.0112	0.915865	NS
b) Mixed	11	13	0			
Religion						
a) Hindu	19	17	0	4.8374	0.089039	NS
b)Christian	6	4	0			
c) Muslim	3	11	0			
d) Others	0	0	0			
Sex of the Baby						
a)Male	12	12	0	0.0445	0.832937	NS
b) Female	17	19	0			
Source of Information about breastfeeding						
a) Mass Media Communication	19	21	0	0.30	0.583882	NS
b) Health care personnel	11	9	0			
c) Attended any classess on postnatalcare	0	0	0			

***NS-Not significant** *** S-Significant**

Table 5 reveals that in the association of breastfeeding scores with the demographic variable the following variables are having association with the breastfeeding such as mode of delivery and time of initiation of breastfeeding.

DISCUSSION:

Breastfeeding initiation and Duration are need to increase for effective breastfeeding promotion. The factors that will help or hinder a mother in her efforts to breastfeed include sociodemographic characteristics, maternal employment, and social support. The breast feeding support that increases breastfeeding includes emotional status, confidence, and educational components from both informal social

network members (male partner, mother, family/friends) and professional network members (health care professionals, lactation consultants).

A randomized controlled trial in Toronto, randomly assigning 51 women to conventional postpartum nursing care or to individualized professional support that continued into the community. At four weeks postpartum, 68% of the women receiving conventional postpartum support continued to breastfeed, while 100% of the women receiving individualized support continued to breastfeed.[10]

The finding of the study is supported by. A study was conducted to evaluate the effect of breastfeeding counseling and breastfeeding support by trained counselors during the ante-natal period at health facility and post-natal period at home on breastfeeding practices during the first six months of life. This was a randomized controlled study that compared the effect of counselling on breastfeeding during the first 6 months of life. The study was done in a government medical college in northern India, which is situated in an urban area. Total sample size was 300 healthy pregnant women from an urban population attending the antenatal clinic at Jawaharlal Nehru Medical College, Aligarh Muslim University were recruited for the study. Subjects were equally assigned randomly to the intervention (2 antenatal and 8 postpartum home counseling visits by the counselors) and control (non-counseling) group. The Infant feeding practices including rates of initiation of the breastfeeding within one hour of birth; exclusive breastfeeding and bottle-feeding during the first 6 months of life. The study results that, that Initiation of breastfeeding within one hour of birth was 73.4% in intervention group as compared to 33.6% in control group (P=0.001). More mothers in the intervention group (88.1%) were able to sustain exclusive breastfeeding rates at 6 months of age in comparison to the control group (50%).[11]

IMPLICATION

Breastfeeding protects the new born from various health problems. Breastfeeding support is very much essential to improve the status of exclusive breastfeeding. Health care institution should take some action to maintain the optimal breastfeeding such as increasing the BFHI, tracking the lactation mother after discharge from the hospital, continuous breastfeeding support during hospitalization, and providing education about the lactation management**.**

CONCLUSION

Effective Breastfeeding intervention is very much needed to maintain the exclusive breastfeeding rates. Postnatal mothers need to be supported throughout the lactation process, by family members, society and health care professionals.

DECLARATION OF CONFLICTING INTERESTS

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

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