

STUDY OF EARLY INITIATION OF BREASTFEEDING AND ITS OUTCOME ON THIRD STAGE OF LABOUR

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Abstract

Background: Breastfeeding or nipple stimulation are stimuli that can cause the release of oxytocin, which in turn causes uterine contractions, which lessens bleeding during the third stage of labor. Hormones prostaglandin and oxytocin cause the uterus to contract during the third stage of labor. Exogenous or endogenous oxytocin stimulates receptors in the uterine muscles, causing uterine contractions. The aims and objectives are to initiate breastfeeding of the newborn as soon as possible and to evaluate the effectiveness of early initiation of breast feeding on outcome third stage of labour in the experimental group. **Materials and Methods:** In this study, normal deliveries were observed in Labour room, MGM Medical College and Hospital, Kishanganj. Study participants were selected from delivery cases attended during the study period from March 2021-March 2022 excluding caesarean section deliveries. Out of 100 patients 50 is for experimental and 50 for control groups, time of initiation of breastfeeding and its association was measured with spontaneous breathing, skin-to-skin contact and postnatal contact of mother and new born in the third stage of labour. **Result:** The result showed in cases 32%, 48%, 18%, 2% between 16-20, 21-25, 26-30, 31-35 years and in control 16%, 56%, 26%, 2% in mothers were in the age group of 16-20 21-25, 26-30, 31-35 years respectively. The mean duration of third stage and amount of blood loss was 7.30+/-1.31, 9.50+/-2.58 and 197.60+/-60.93, 298.98+/-71.77 with the mean difference of 2.20 minutes and 101.38ml in the experimental and control group respectively. **Conclusion:** Early breastfeeding had a positive impact on the length of the third stage and the volume of blood loss in the experimental group.

INTRODUCTION

The child's first fundamental right is to be breastfed. For the growth, development, health, and nutrition of newborns and children everywhere, it is crucial to start breastfeeding and to introduce complementary foods in a timely manner that are sufficient, safe, and suitable.^[1,2] It is found that early suckling and hand touching by babies stimulates oxytocin release which is significant for uterine contraction and early separation of placenta.^[3,4]

In India child death accounts for two-third of mortality and half of the pediatric deaths occurring in infancy. Each year 26 million infants are born in India, around 10% of them do not survive to 5 years of age. India contributes to 25% of the 10 million under five deaths occurring worldwide every year. One of the main causes for this is delay in initiation of breast feeding.^[5] Only 24.5% women initiate breast feeding within one hour of delivery, exclusive

breast feeding rate at 6 months is only 40%. Exclusive breast feeding has been identified as the single most effective, preventive intervention which could prevent 13 percent of all childhood deaths.^[6] WHO estimates that 1.5 million infant lives could be saved each year through increased breast feedings. One -fifth of neonatal deaths could be prevented by early initiation of exclusive breast feeding. Breast feeding within the first hour.^[7] A descriptive study was conducted to assess the prevailing breast feeding and infant feeding practices among 1050 infants from 0 - 24 months of age in rural areas of Bihar. The results revealed that only 3(0.3%) infants were offered breast feeding within one hour after delivery. Breastfeeding was frequently delayed; 35% of infants were not breastfed even 48 hours after birth.^[8,9] Within the first hour after birth, breastfeeding helps to increase breast milk production. The first milk, commonly known as colostrums, is incredibly nourishing and aids in disease prevention. Early initiation ensures that a

newborn receives colostrum. Colostrum is often considered the baby's first immunization because of its high level of vitamin A, antibodies, and other protective factors.^[10]

Contrary to popular belief, moms are less likely to initiate early breastfeeding if they give birth in a hospital than at home, according to similar surveys conducted within the past ten years.^[11,12] Since encouraging institutional delivery (a proxy for skilled attendance) is a priority intervention to reach the targets of the Sustainable Development Goals of reducing maternal and child mortality by 2030, the persistently lower coverage of early breastfeeding initiation within health facilities is concerning.^[13]

Objectives

1. To initiate breastfeeding of the newborn as soon as possible in the experimental group.
2. To evaluate the effectiveness of early initiation of breastfeeding on outcome of third stage of labour in the experimental group in comparison with control group.

MATERIALS AND METHODS

Source Of Data: The study was carried out among selected 100 delivering patients in labour room of Obstetrics and Gynaecology of MGM Medical College and Hospital, Kishanganj,

Study Design: prospective observational study with study period from March 2021-March 2022.

Sample Size: 100 patients in labour were selected excluding cesarean section deliveries after obtaining ethical committee clearance. 50 Patients were for cases (group A) and remaining 50 patients were for control (group B).

Inclusion Criteria

- Mothers who are willing to participate in this study.
- Mothers undergoing normal delivery between 37-40 weeks of gestation.

- Singleton pregnancy
- Live fetus
- Neonates with APGAR score more than 7.

Exclusion Criteria

- Mothers with severe pregnancy induced hypertension
- Newborns of mother with gestational diabetes mellitus.
- Mother with placenta previa.
- Fetus with meconium stained amniotic fluid.

Methodology

The prospective observational study was carried out among selected 100 delivering patients in labour room of Obstetrics and Gynaecology Department of MGM Medical College and Hospital, Kishanganj excluding cesarean section deliveries. 50 Patients were selected for cases (group A) and remaining 50 patients were for control (group B). Time of initiation of breastfeeding was observed and its association was measured with spontaneous breathing, skin to skin contact and postnatal contact of mother and newborn in the third stage of labour.

RESULTS

In relation to the demographic and obstetrical variables it showed that mother in cases 32%, 48%, 18%, 2% in the age group of 16-20 21-25, 26-30, 31-35 years and in control 16%, 56%, 26%, 2% were in the age group of 16-20 21-25, 26-30, 31-35 years respectively. The mean duration of third stage and amount of blood loss was 7.30+/-1.31, 9.50+/-2.58 and 197.60+/-60.93, 298.98+/-71.77 with the mean difference of 2.20 minutes and 101.38ml in the experimental and control group respectively. The calculated 't' value is -5.569 and -7.582 (p<0.000) was statistically significant in the duration of third stage of labour and amount of blood loss in the experimental group.

Table 1: Age of the Patient

Age (years)	Group A (CASES)		Group B (CONTROL)	
	No. of patient	Percentage	No. Of patient	Percentage
16-20	16	32%	8	16%
21-25	24	48%	28	56%
26-30	9	18%	13	26%
30-35	1	2%	1	2%

The mean age of patient in labour in Group A was highest in 20-25 years with 48% and lowest with 30-35 years age group with 2%. While in Group B highest in 20-25 years with 56% and lowest with 30-35 years age group with 2%.

Table 2: Parity

Parity		Group A		Group B		Total	Chi- square value	P value
		No. of cases	Percentage	No. of cases	Percentage			
Parity	Primigravida	19	38%	21	42%	40	0.167	0.683
	Multigravida	31	62%	29	58%			
Total	50	100%	50	100%	100			

P=0.167>0.05, NS

The no. Of patients in multigravida is 62% and 38% in primigravida in experimental group(A). The no. of patients in multigravida is 58% and primigravida is 42% in control group(B) respectively.

The no. of patients belonging to 37-40 weeks with 70% and >40 weeks with 30% in experimental group (A). The no. of patients belonging to 37-40 weeks with 82% and >40 weeks with 18% in Control group (B). The no. of patients with previous breastfeeding is 30 with 60% and no previous feeling is 20 with 40% in experimental group(A). The no. of patients with previous breastfeeding is 29 with 59% and no previous feeling is 21 with 42% in control group(B).

Table 3: Gestational Age

		Group A (CASES)		Group B		Total	Chi-square value	P-value
		No. of cases	Percentage	No. of cases	Percentage			
Gestational	37-40	35	70%	41	82%	76	1.974	0.16
Age(w eeks)	>40 weeks	15	30%	9	18%	24		
Total	50	100%	50	100%	100			

P=0.16>0.05,NS

Table 4: Previous Breast Feeding

		Group A (CASES)		Group B		Total	Chi Square value	P value
		No. of cases	Percentage	No. of cases	Percentage			
Previous Breastfeeding	Yes	30	60%	29	58%	59	0.041	0.839
	No	20	40%	21	42%	41		
Total	50	100%	50	100%	100			

P=0.839>0.05 NS

Table 5: Gender of the Baby

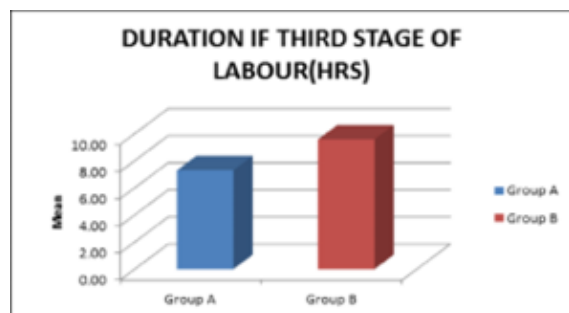
		Group A (CASES)		Group B		Total	Chi square test	P value
		No. of patient	Percentage	No. of patient	Percentage			
Sex	Female	22	44%	27	54%	49	1.000	0.317
	Male	28	56%	23	46%	51		
Total	50	100%	50	100%	100			

P=0.317>0.05 NS

The no. of female baby is 22 with 44% and male baby is 28 with 56% in experimental group (A). The no. of female baby is 27 with 54% and male baby is 23 with 51% in control group (B).

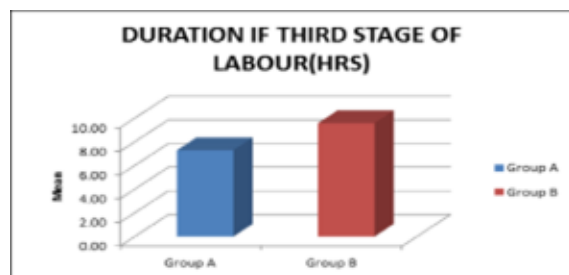
Table 8: Present Study Vs Other Studies

	Present Study	Sumithra et al	A Prishanthini et al
Duration of third stage of labour(min)			
Case group	7.30±1.31	9±1	3.57±1.52
Control group	9.50±2.50	12±1	10.27±2.92
Amount of bleeding(ml)			
Case group	197.60±60.93	125±25	198.33±25.74
Control group	298.98±71.72	272.60±60.2	302.67±33.41



Graph 1: Duration Of Third Stage Of Labour(HRS)

P=0.001<0.05, Significant



Graph 2: Amount of Blood Loss

P=0.001<0.05, Significant

The mean duration of third stage of labour in mins in experimental group(A) is 7.30 mins and in control group(B) is 9.58 mins with difference of 2.20 mins with is statistically significant.

The mean amount of blood loss in experimental group(A) is 197.60ml while in control group(B) is 298.98 ml with difference of 101.38 ml which is statistically significant.

DISCUSSION

The findings of the current study showed a substantial difference between the case and control groups in the parturients' maternal outcomes. The component duration of third stage of labour in case is case (group A) 7.30±1.31 and control (group B) 9.50±2.50 respectively and amount of blood loss 197.60±60.93 in cases and 298.98±71.72 in control groups were consistent with the findings Sumithra et al and A Prishanthini et al.

The current study finds that multigravida make up 62% of participants, while primigravida make up

38%. This is close to the study by Farhana et al., which found that 50.6% of the primigravida group and 48.2% of the multigravida participated. It is similarly comparable to the study by Mahabat et al., where 52.7% of the population is multigravida and 47.3% is primigravida.

CONCLUSION

According to the study, mothers in the third stage of labor lost less blood and experienced shorter third stage durations when they started nursing early. Additionally, there was a positive correlation between the duration of the third stage of labor and the volume of blood lost. All of the patients in Group A experienced less blood loss, which reduced their risk of developing postpartum hemorrhage, prolonged third stage of labor, manual placenta removal, uterine inversion, infections, and puerperal sepsis.

In conclusion the early initiation of breastfeeding could be promoted by health care professionals in day to day caring the mothers in hospital.

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