

Effect of Immediate Breast Feeding without Intramuscular Oxytocin During NVD in Terms of Duration of Placental Separation and Immediate Blood Loss among Women

Mansi Choudhary

Author Affiliation
Assistant Professor, SAIMS College
of Nursing, Indore,
Madhya Pradesh 453555, India.

Corresponding Author
Mansi Choudhary, Assistant
Professor, SAIMS College
of Nursing, Indore,
Madhya Pradesh 453555, India.
E-mail: mansi27choudhary@gmail.com

Received on 14.03.2018

Accepted on 02.04.2018

Abstract

This study was carried out to find out the effectiveness of immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among women. The goal of maternity care is a healthy pregnancy with a physically safe and emotionally satisfying outcome for mother, infant & family. Consistent health supervision and surveillance are of utmost importance in achieving this outcome. The aim of maternal and child health is to ensure that throughout pregnancy, labor and puerperium the mother should have a good health and that every pregnancy may culminate in a healthy mother and healthy baby. The introduction of new non pharmacological interventions in intranatal period is important to prevent post partum complications that in turn helps in the reduction of maternal mortality and morbidity rates.

Keywords: Non Pharmacological Intervention; Without Intramuscular Oxytocin; Normal Vaginal Delivery; Placental Separation, Immediate Blood Loss.

Introduction

Mother's milk is a divine gift for a baby. The joyous moment of birth comes not only after many hours of difficult time during labor but also at the end of nine months waiting and preparation for the babies arrival. Not surprisingly, the majority of mothers experience a tremendous sense of physical relief and emotional excitement when the baby is finally born.

The goal of maternity care is a healthy pregnancy with a physically safe and emotionally satisfying outcome for mother, infant & family. Consistent health supervision and surveillance are of utmost importance in achieving this outcome. Mothers and children constitute a large vulnerable or special risk group. In case of women the risk is associated with child bearing. The aim of maternal and child health is to ensure that throughout pregnancy, labor and puerperium the mother should have a good health and that every pregnancy may culminate in a healthy mother and healthy baby.

This study was carried out to find out the effectiveness of immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among women. The goal of maternity care is a healthy pregnancy with a physically safe and emotionally satisfying outcome for mother, infant & family. Consistent health supervision and surveillance are of utmost importance in achieving this outcome. The aim of maternal and child health is to ensure that throughout pregnancy, labor and puerperium the mother should have a good health and that every pregnancy may culminate in a healthy mother and healthy baby. The introduction of new non pharmacological interventions in intranatal period is important to prevent post partum complications that in turn help in the reduction of maternal mortality and morbidity rates.

Problem Statement

"An experimental study to assess the effect of

immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among women who are admitted in labor room of selected hospitals at Indore.”

Objectives

- To assess the effect of immediate breast feeding without intramuscular Oxytocin on duration of placental separation in experimental and control group.
- To assess the effect of immediate breast feeding without intramuscular Oxytocin on immediate blood loss in experimental and control group.
- To compare the effect of immediate breast feeding without intramuscular Oxytocin on duration of placental separation and immediate blood loss.
- To assess the association between duration of placental separation and immediate blood loss and selected demographic variable.

Review of Literature

- *Thompson, et al. (2010)* A descriptive study conducted to assess the effectiveness of early breast feeding based on quantitative and qualitative data collected via questionnaires completed in the first week postpartum and at two and four months postpartum, Among women with a significant PPH, 63% fully breastfed their babies from birth, whereas 85% said they had hoped to do so ($p < 0.001$). Only 52% of mothers who intended to either fully or partially breastfeed were able to give their baby the opportunity to suckle within an hour of the birth. Delays were longer in women with greater estimated blood loss and women with the longest delays in breastfeeding were less likely to initiate full breastfeeding. 70% of women with PPH of < 2000 ml were fully breastfeeding in the first postpartum week, whereas less than 50% of those with blood loss ≥ 3000 ml were able to do so. Overall, 58% of women with significant PPH were fully breastfeeding at two and 45% at four months postpartum. This study concluded that there is significant effectiveness of breast feeding on preventing PPH.
- *Sohila Pirdadeh Beiranv (2009)* A comparative study to assess the effect of nipple stimulation and oxytocin infusion on the duration of

phases of labor, The mean duration active phase of labor for the nipple stimulation group was 203.48 ± 104.90 compared to 191.75 ± 79.01 of the oxytocin infusion group, indicating no statistically significant difference ($p=0.470$) on this. The same thing applied to the second and the third stage of labor between the two groups ($p=0.092$, $p=0.872$). The findings showed that nipple stimulation is a safe effective technique to induce or augment labor.

Hypothesis

- *RH1:* There will be significant difference between duration of placental separation and immediate blood loss in experimental group and control group.
- *RH2:* There will be significant association between duration of placental separation and immediate blood loss in experimental group and control group with selected demographic variable.
- *RH0:* There will be a no significant difference between duration of placental separation and immediate blood loss in experimental group and control group.

Methodology

True experimental design is used in this research i.e (post test only control group design), An experimental research approach was used to find out the effect of immediate breast feeding without intramuscular Oxytocin during normal vaginal delivery in terms of duration of placental separation and immediate blood loss among intranatal women. The sample consisting of 60 intranatal mothers are admitted in labour room. They were chosen by random sampling technique. The study was conducted in SAIMS hospital and dolphin hospitals at the Indore city.

In the study 6 demographic variables were used for collecting base line data i.e Age, gravida, para, nature of case, educational status and socio economic status.

Section B: Assessment criteria/ intranatal observation schedule

It consists of observation schedule of obstetrical factors, which would be assessed at the time of intervention. It consisted of 4 items.

- *Delivery record:* It is the record to assess the progress of labor.

- *Delivery of the baby:* To assess the duration of second stage of labor and the time of initiation of immediate breast feeding without intramuscular Oxytocin i.e., as soon as baby born. The baby is put on mother abdomen for breast feeding only in experimental group.
- *Delivery of placenta and membrane:* It is to assess the duration of placental separation in third stage of labor.
- *Blood loss:* It is to assess the blood loss during third stage of labor.

Steps followed in the procedure for experimental group is as follows:

Step 1: The swabs, drapes, sponges were weighted before using and its weight was noted.

Step 2: Soon after the delivery the baby was placed on mother abdomen for breast feeding and mackintosh under buttock was changed and the weighted swabs, drapes and sponges was

used for further management.

Step 3: As soon as baby starts sucking the sign of placental separation appears (i.e., the uterus becomes globular in shape and firm, uterus rises in the abdomen, the umbilical cord descends three (3) inches or more further out of the vagina and sudden gush of blood appears) and the placenta delivers without any manipulation.

Step 4: The duration of placental separation (Third stage of labor) was noted by using stopwatch (in min).

Step 5: The blood loss was measured by weighing the sponges, drapes and swabs was calculated by direct weight converting 1g is equals to 1ml. The amount of blood loss was calculated in ml.

Analysis and Interpretation

Comparison of effect of immediate breast feeding and without intramuscular oxytocin on duration of placental separation and immediate blood loss.

Table 1: Descriptive statistics

Parameter	Group	Mean	Std. Dev.	Std. Error of Mean
Time difference in born and delivery of placenta (Minute)	Exp.	6.7	1.32	0.24
	Ctrl	9.1	1.47	0.27
Blood loss before delivery of the placenta (Milliliter)	Exp.	37.33	13.63	2.49
	Ctrl	58.17	15.51	2.83
Blood loss during delivery of the placenta (Milliliter)	Exp.	86.33	24.42	4.46
	Ctrl	123.67	29.88	5.46
Blood loss after delivery of the placenta (Milliliter)	Exp.	156.00	33.07	6.04
	Ctrl	234.33	33.60	6.13
Total Blood loss (Milliliter)	Exp.	279.67	47.09	8.6
	Ctrl	416.17	32.45	5.92

Comparison between experimental group and control group

Parameter	Mean Diff	Std. Error of Diff	t-value	p-value (LOS)
Time diff between birth and delivery of placenta	2.40	0.360	6.66	p<0.001
Blood loss before delivery of the placenta	20.83	3.769	5.53	p<0.001
Blood loss during delivery of the placenta	37.33	7.046	5.30	p<0.001
Blood loss after delivery of the placenta	78.33	8.607	9.10	p<0.001 [⊕]
Total blood loss	136.50	10.440	13.07	p<0.001 [⊕]

Results

The data was analyzed by descriptive and inferential statistics.

Discussion on effectiveness of immediate breast feeding

This study shows that there is a significant effectiveness of immediate breast feeding on without intramuscular oxytocin during normal

vaginal delivery in terms of duration of placental separation and immediate blood loss. Where the t- value is 6.66 (p<0.001) for time difference between birth and delivery of placenta, 5.53 (p<0.001) for blood loss before delivery of placenta, 5.30 (p<0.001) for blood loss during delivery of placenta, 9.10 (p<0.001) for blood loss after delivery of placenta, 13.07 (p<0.001) for total blood loss. In this study hypothesis *RH1* made by the investigator is accepted.

Discussion of association between placental separation and selected demographic variable

The study shows that there is significant association between placental separation age of subjects, gravid number, parity, educational status and socio economic status in experimental group and there is no significance between the control group and selected demographic variables.

There was significant $\chi^2 = 7.50^*$ ($p < 0.03$) association between age of the mother and placental separation.

There was significant $\chi^2 = 7.04^*$ ($p < 0.03$) association between gravida number and placental separation.

There was significant $\chi^2 = 5.89^*$ ($p < 0.02$) association between parity and placental separation.

There was significant $\chi^2 = 8.57^*$ ($p < 0.05$) association between educational status and placental separation.

There was significant $\chi^2 = 5.00^{**}$ ($p < 0.08$) association between socio economic status and placental separation.

There was significant $\chi^2 = 6.99^*$ ($p < 0.03$) association between age of the mother and total blood loss.

There was significant $\chi^2 = 7.04^*$ ($p < 0.03$) association between gravida number and total blood loss.

There was significant $\chi^2 = 8.10^*$ ($p < 0.05$) association between educational status and total blood loss.

There was significant $\chi^2 = 6.08^*$ ($p < 0.05$) association between socio economic status and total blood loss.

Thus the hypothesis RH2- made by the investigator that, there would be a significant between blood loss and placental separation with experiment group and control group.

Interpretation and Conclusion

The study results concluded that immediate breast feeding is found to be effective in reduction of duration of placental separation and blood loss. These findings have implications for postnatal care as these women may require greater support, education and assistance in initiating and sustaining breastfeeding. In particular, enabling the opportunity for the newborn to suckle as soon as practice should be encouraged.

References

1. Basavanthappa, B.T. "Nursing Research" 2nd Edition, Jaypee Brothers, New Delhi. 2007.
2. Dawn, C.S. "Textbook of Obstetrics, Neonatology & reproductive & child health education, Edition 16th Dawan Books, Kolkata. 2004.
3. D.C. Dutta. Text Book of Obstetric, 6th Edition, New Central Book Agency (P) Ltd, Culcutta. 2004.
4. Dewhurst's D Keith edmonds. Text book of Obstetrics and Gynecology sixth edition, Churchill livingstone.
5. F.Gary Aenningham, Norman F.Gant, Kennethj Leveno, Larry C. Gilstrap, Williams. "Obstetrics", Edition 21st International, M.C. Graw Hill, Medical Publication Division New York. 2001.
6. Jacob Annamma. A Comprehensive Text book of Midwifery", 2nd edition, Jaypee publishers. 2007.
7. Bhide. Maternal mortality due to hemorrhage. Journal of obstetrics & gynecology, 1998;42(3): 335-37.
8. Ellen J. Razgaitis. Physiologic Mechanism of Nipple Stimulation, Journal of Midwifery and Women's Health, 2010;52(3):273-80.
9. Forster, D.A.I, McLachlan, H.L., Breastfeeding Initiation and Birth Setting Practices: A Review of the Literature Journal of Midwifery and Women's Health, 2007;52(3):273-80.
10. Irons, D.W., P. Sriskandabalan, and C.H.W. Bullough, A simple alternative to parenteral oxytocics for the third stage of labor. International Journal of Gynecology & Obstetrics, 1994;46:15-18.
11. Glover P. Blood loss at delivery: how accurate is your estimation? Australian Journal of Midwifery. 2003;16(2):21-24.
12. Jennifer sleep, "Exclusive breast feeding", Journal of obstetrics, 1996.
13. Kent, J.C., How Breastfeeding Works, Journal of Midwifery and Women's Health, 2007;52(6):564-70.
14. Kavle JA, Khalfan SS, Stoltzfus RJ, Witter F, Tielsch JM, Caulfield LE. Measurement of blood loss at childbirth and postpartum. International Journal of Gynecology & Obstetrics. 2006;95:24-28.
15. Priya bhide. Modern management of third stage labor, journal of obstetrics & gynecology, 1996 March;44(4):543-47.
16. Sharda Jain. Maternal mortality in India: obstetrics & gynecology Today, Journal of obstetrics & gynecology, 1996 March;44(4):545-47.
17. Shivkar, Mabel, Labor room Practices conducive to breast feeding, Nursing journal of India, 1994;95(5):109.
18. Vatsayan A, etal "Age during breast feeding and timely suckling, Indian J Pediatric, 1996 Dec;63(6): 791-4. PMID: 10830062 (Pub med).