

## Effectiveness of Mother and Newborn Immediate Skin-to-Skin Contact (SSC) on Duration of Delivery of Placenta and First Breastfeeding: A Literature Review

Minakshi Patidar<sup>1</sup>, Sapna Patel<sup>2</sup>, Anjali Tiwari<sup>3</sup>

**Author Affiliation:** <sup>1</sup>M.Sc Nursing, <sup>2</sup>Assistant Professor, <sup>3</sup>Assistant Professor and HOD, Dept. of Obstetrics and Gynaecological Nursing, Manikaka Topawala Institute of Nursing, Charusat, Gujarat 388421, India.

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### Abstract

*Introduction:* The close dermal contact between labouring woman and her newborn baby is a part of baby rising that may simpler and free from complication to a few, however its viewed as unique practice to mothers. This close contact expands the level of oxytocin in the mother's blood. The significance gives result its function of increasing womb action or contractibility that boost and reduce time of separation and delivery of placental sheath. likewise helpful for the discharge of mother's breast milk at the time of infant suckling, further response to aroused bonding which happens in both the mother and infant time of labour process. There are some investigation indicated that this contact diminishes length of 3<sup>rd</sup> phase of labour and start of bosom breastfeeding. Thus, researcher needs to differentiate confirmation that early SSC helpful for lessening the length of delivery of placenta and origin of bosom breastfeeding. *Methodology:* As a nurse Investigator used various resources of research studies in online related to this research like Research gate, ProQuest and CINHAL. *Result:* After finding nursing article related to study found that early SSC helps in reducing time period of 3<sup>rd</sup> stage of delivery and begin of breast feeding. The present of this practice also preventing hypothermia in neonates; reduce maternal pain during episiotomy repair and possibility of immediate post-partum haemorrhage. *Conclusion:* The final conclusion of many supported literature review investigator conclude that only few study help the research problem. However on the other side some study findings review of literature that early SSC easily applicable and efficient for reducing the timely expulsion of placenta and help in boosting effect of breastfeeding.

**Keyword:** Used through resea rcher for searching review of literature are effectiveness; Immediate skin level to skin level skin contact; Mother; Newborn; Time period of delivery of placental sheath; first breast feeding.

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**Corresponding Author:** Minakshi Patidar, M.Sc Nursing, Dept. of Obstetrics and Gynaecological Nursing, Manikaka Topawala Institute of Nursing, Charusat, Gujarat 388421, India.

**E-mail:** jayemina@gmail.com

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## Background of the study

Carrying a newborn baby on the earth is a blissful minute. When a lady finally transform into a mother of a child, that time many good and bad situation arises. The mother close dermal contact with new born skin is a part of childhood rising, this give clear and free from complication., yet this seen as a workmanship to experienced mothers. It is described as close skin contact the baby stripped with the mother skin on the chest. This contact assembles level of oxytocin in the mother's blood. Oxytocin is a chemical substance which produced in the operational hub (hypothalamus) and is secreted from the back pituitary gland as an answer to social touch. This discharge is mainly connected through direct skin contact.<sup>1,2</sup>

Various projects carried out and revealed that the sound outcome of close skin contact in between mother and newborn baby, is mainly due to oxytocin secretion. This hormone responsible for increasing uterine contraction result's in reduce the time period of detachment and ejection of placenta. Moreover, it also helpful to release of milk from the breast when baby suckling, despite passionate procedure which occurs in between labouring woman and her neonate baby at the time of labour process. When a woman holding her newborn baby immediate following birth result's in feeling of good attachment, and also close dermal contact provoke helpful maternal holding practices with eye connection, nestling, talking, grinning and contacting the infant child.<sup>3</sup>

Acc. to the BFHI recommendation, immediate after birth babies must be placed into close dermal contact with mother for minimum 60 minutes and breastfeeding should be started inside primary 30 min. after the delivery of their babies.<sup>4,5</sup>

### Need of study

The 3<sup>rd</sup> phase of labour process initiate following birth of the baby and it includes detachment and ejection of placental sheath and layers. This time period is very significant for the wellbeing and physical fitness of mother and neonate as well as the stating of unique long lasting relationship of both.<sup>6</sup>

Following delivery, taking away newborn babies from their mother is basically seen in numerous setting, especially in connection to cesarean, episiotomy or cut fix, or infant assessment and regular practice. This practice shortens valuable

hormone activities of mom-newborn's close dermal contact, the advantages of this practice the perspective of hormonal functioning along with continue practices also help useful hormonal functioning incase of division of newborn child and mom is essential.<sup>7</sup>

### Advantages of close dermal contact:

- Continue close dermal contact and commencement of breastfeeding may enhance the level of oxytocin and prolactin in mother's blood, advancing bonding and breastfeeding, also conceivably prevent excessive blood loss during postnatal period.
- SSC advances maternal vasodilatation, warming the newborn child and avoiding hypothermia.
- It diminishes infant mental pressure and related hormones, streamlining infant process of Physical and chemical function, including vitality utilization, breath, cry and easy sucking practices.
- It progresses breastfeeding due to immediately secretion of prolactin hormone, rising the probability of specific and breastfeeding for long-lasting period.
- Continuous close dermal contact may have points of interest to maternal mental prosperity likely through zeniths of oxytocin and prolactin, both pressure lessening.<sup>7</sup>

Experts recommend starting 120 minutes following delivery, the "fragile minute" reason that this period is very vital for mother similarly as newborn. The benefits of this practice instantly following first it gains the child's ground to extra uterine life, enhancing ability of mother to attachment with her baby, reducing the time period of placental delivery, also diminishes mother's and newborn's mental pressure.

### Literature Review

Review of literature is very vital part of research study because it provides information to researcher that how much fact is known and remains. It helps to plan and guidance to study.

### Review methods

To provide narrative review of the research study focusing on effectiveness of the mother and new

born immediate close dermal contact to reduce time period of 3<sup>rd</sup> phase of labour process and beginning of breastfeeding.

### Search strategy

Researcher utilized various data base for the searching review of literature like: Google scholar, MPubmed, MEDLINE, Research gate, CINHAL,

ProQuest.

### Literature is divided among three Section:

- Literature is related to duration of delivery of placenta
- Literature related to initiation of breast feeding.

**Table 1:** Significant and use literature

### A. Literature is Related to Duration of Delivery of Placenta:

Sr. No	Objective	Methodology	Major findings (Result and Conclusion)	Reference no.
1.	To ensure the outcome of the parturient woman and baby immediate close dermal contact on the period of placental sheath detachment and delivery.	<b>Study design:</b> True experimental design <b>Population:</b> Labouring women <b>Sample size:</b> Twenty eight (in each group) <b>Sampling technique:</b> Randomly assigned alternatively into both groups.	Project's results depicts that the time period of 308.5 sec. for delivery of placental sheath was observed in interventional as well as 570 sec. in cont. (control) group, $p$ -value = 0.042*, also conclude that close dermal contact was helpful to declining the time period of placental expulsion.	8
2.	To discover the outcome of immediate parturient woman and neonate close dermal contact on the 3 <sup>rd</sup> phase of delivery process, on sensation at breast feeding, and also determine this method's applicability in a busy delivery area of India's tertiary care hospital.	<b>Study design:</b> True experimental design <b>Population:</b> Parturient women <b>Sample size:</b> 100 in interventional and 100 in control group <b>Sampling technique:</b> Randomly assigned	Study's results explains that women in study group was ten minutes less time period of 3 <sup>rd</sup> phase of labour process compared to cont. group and $p$ -value was less than 0.01. Placental sheath was delivered like complete in ninety eight percent & eighty one percent patients in the experimental & cont. group respectively. On observation the Success rate of breastfeeding and started within half an hour was observed in experimental grp (group) contrast to the cont. group. Project recommended to early SSC responsible for the faster uterine contraction with the complete placental delivery and reducing the time period of 3 <sup>rd</sup> phase of delivery process.	9
3.	To test the result of close dermal contact among parturient woman and newborn baby at the time of 3 <sup>rd</sup> phase of labour on level of oxytocin during postnatal period and ache and time of detachment of placenta.	<b>Study design:</b> True experimental design <b>Population:</b> Parturient women <b>Sample size:</b> Thirty two in study and thirty two in control group <b>Sampling technique:</b> Randomly assigned	Project shows that there was no considerable difference about time detachment of placenta ( $p > 0.05$ ), but in study group due to effects of SSC pain level was lower ( $p < 0.05$ ), project conclude that close dermal contact is a important practice for improving health of mother and newborn.	10
4.	To find out the consequences of skin level to skin level contact on the length of third phase of labour at delivery room.	<b>Study design:</b> Quasi experimental design <b>Population:</b> Parturient mothers <b>Sample size:</b> forty (in each group) <b>Sampling technique:</b> Purposive sampling technique	Study depicts that in evaluation of 3 <sup>rd</sup> phase of labour there are considerable difference in between experimental and cont. group, also study suggested that nonstop educational instructive and teaching program for all midwives who working in the labour room, helpful in the application of close dermal contact for every women who admitted into the labour room and also simplify the advantages on post natal mother and her baby.	11

**B. Literature Related to Initiation of Breast Feeding:**

Sr. No	Objective	Methodology	Major findings (Result and Conclusion)	Reference no.
5.	To identify the efficiency of close dermal contact on the time of exclusive breast feeding at the age of six week in the full term newborn babies delivered through normal delivery process.	<b>Study design:</b> True experimental design <b>Population:</b> Full Term newborn babies delivered by normal vaginal delivery <b>Sample size:</b> 100 in study and 100 in cont. group <b>Sampling technique:</b> Computer method (block randomization)	Project's results indicated and conclude that newborn babies in the study group were absolutely breastfeed at the age of six weeks than in control group, $p = 0.04$ . Mothers who were receiving SSC was suffered with less pain during episiotomy suturing compared to the women in the cont. group. ( $P < 0.01$ ).	12
6.	To confirm the outcome of skin level to skin level contact and breast feeding among women who were at risk of developing PPH within half an hour of delivery of baby.	<b>Study design:</b> Retrospective cohort design <b>Population:</b> Postnatal mothers <b>Sample size:</b> Child Birth documents ( $n=7548$ ) <b>Sampling technique:</b> For the calendar years 2009 and 2010, used Obstetrix electronic data base.	Results showed that women who had higher risk of developing PPH who neither receive SSC nor breastfeeding compared to mothers who had received both ( $p < 0.001$ ).  And also study suggests that immediate after birth SSC and breastfeeding is helpful in reducing the risk and rates of PPH.	13
7.	First step was To give education to the hospital staff related to delivery process and second was to give education to all antenatal mothers with 36 weeks of periods of gestation with no any complication..	<b>Study design:</b> Two step educational intervention <b>Population:</b> Parturient mothers <b>Sample size:</b> 40 samples in each group <b>Sampling technique:</b> Purposive sampling technique	Research Study's results summarize that easy and cost-effective educational intervention of close dermal contact as well as immediate nipple suckling by neonate was helpful to successfully bring quality care in hospitals of rural area.	14

**C. Literature Related to Duration of Delivery of Placenta and Initiation of Breast Feeding:**

Sr. No	Objective	Methodology	Major findings (Result and Conclusion)	Reference no.
8.	To assess the efficiency of skin level to skin level contact on the reduction of episiotomy pain during repair, period of placental delivery, thermoregulation of infants body temperature And increased success rate of breastfeeding.	<b>Study design:</b> True experimental design <b>Population:</b> Parturient mothers and their newborn <b>Sample size:</b> 137 in study and 137 in control group <b>Sampling technique:</b> Randomly assigned	Results recommended that infants in the SSC group had increase an average temperature of $0.04^{\circ} \text{C}$ and also Mothers in the interventional group were exclusively breastfeed more regularly at the time of discharge as well as also reduce the mean time period of delivery of placenta than the mothers in the cont. group.	15
9.	To identify the efficiency of close dermal contact of parturient woman and newborn instantly following birth on duration of 3 <sup>rd</sup> phase of delivery process and starting of breastfeeding.	<b>Study design:</b> A non-RCT <b>Population:</b> Labouring women <b>Sample size:</b> 50 in experimental and 50 in cont. group <b>Sampling technique:</b> Purposive sampling technique	The project results revealed that higher success of first breastfeeding along with lesser mean time period of 3 <sup>rd</sup> phase of delivery process was observed in the interventional group contrast to cont. group ( $p$ -value less than 0.01).	16

Sr. No	Objective	Methodology	Major findings (Result and Conclusion)	Reference no.
10.	To check the sound result of close dermal contact on temperature of neonates, breastfeeding initiation and length of 3 <sup>rd</sup> phase of delivery process.	<p><b>Study design:</b> Quasi experimental design</p> <p><b>Population:</b> healthy parturient mothers and their newborn</p> <p><b>Sample size:</b> Fifty six in experimental and fifty two in control group</p> <p><b>Sampling technique:</b> Non-probability sampling technique</p>	Result of this study depends upon LATCH score, in that successful breastfeeding was showed in forty eight percent women who received skin level to skin level contact and forty six percent women who received regular hospital care. Length of 3 <sup>rd</sup> phase of labour in mothers of experimental group was 6 ± 1.7 min, compared to mothers in control group 8.02 ± 3.6 min. Moreover, 2% and 42% prevalence of hypothermia in newborn in study and control group respectively and also study conclude that skin level to skin level contact easily applicable, even in very small and countries having low socio-economic and has ability to protect life of women as well as newborn.	17

- Literature related to duration of delivery of placenta and initiation of breast feeding.

#### Discussion on Limitation of Review of Literature

- Research study conducted on duration of delivery of placenta, breast feeding initiation also newborn care.
- Project included efficacy of close dermal contact on time period of 3<sup>rd</sup> phase of delivery process, breastfeeding, maternal pain during episiotomy repair etc.
- Others Selected source of data, Grey literature

#### Conclusion of Review of Literature

- In this review article, researcher has added 10 literatures related to research title and after summarization, researcher reveals that immediate skin level to skin level helps to reduce the length of placental delivery and initiation of first breast feeding.

#### References

- Anderson GC, Chiu SH, Dombrowski MA, Swinth JY, Albert JM, Wada N. Mother-newborn contact in a randomized trial of kangaroo (skin-to-skin) care. *Journal of Obstetric, Gynecologic and Neonatal Nursing* 2003;32(5):604-11. Available from: <https://www.ncbi.nlm.nih.gov/pubmed/14565739>
- Chiu SH, Anderson GC. Effect of early skin-

to-skin contact on mother-preterm infant interaction through 18 months: randomized controlled trial. *International Journal of Nursing Studies* 2009;46(9):1168-80. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2818078/>

- Hake-Brooks SJ, Anderson GC. Kangaroo care and breastfeeding of mother-preterm infant dyads 0-18 months: a randomized, controlled trial. *Neonatal Network*. 2008 May;27(3):151-9. Available from: [https://www.researchgate.net/publication/5297990\\_Kangaroo\\_Care\\_and\\_Breastfeeding\\_of\\_Mother-Preterm\\_Infant\\_Dyads\\_0-18\\_Months\\_A\\_Randomized\\_Controlled\\_Trial](https://www.researchgate.net/publication/5297990_Kangaroo_Care_and_Breastfeeding_of_Mother-Preterm_Infant_Dyads_0-18_Months_A_Randomized_Controlled_Trial)
- WHO. CHD. Evidence for the Ten Steps to successful breastfeeding. Geneva: World Health Organization.[Internet]. 1998 [cited on 22 may 2019] Available from: [https://www.who.int/nutrition/publications/evidence\\_ten\\_step\\_eng.pdf](https://www.who.int/nutrition/publications/evidence_ten_step_eng.pdf)
- WHO.UNICEF. Baby-friendly hospital initiative, revised updated and expanded for integrated care. Geneva: WHO press, World Health Organization. [Internet]. 2009 [cited on 15 may 2019] Available from: [https://apps.who.int/iris/bitstream/handle/10665/43593/9789241594967\\_eng.pdf;jsessionid=7E694BBCC36A0423234522C601BD7056?sequence=1](https://apps.who.int/iris/bitstream/handle/10665/43593/9789241594967_eng.pdf;jsessionid=7E694BBCC36A0423234522C601BD7056?sequence=1)
- Begley C, Gyte G, Murphy D. Active versus expectant management for women in the third stage of labor. *Cochrane Database of Systematic Reviews*. 2011;11. Chichester: John Wiley and Sons. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4026059/>
- Early Skin-to-Skin Contact Between Mothers and Newborns A new report, Hormonal

- Physiology of Childbearing: Evidence and Implications for Women, Babies, and Maternity Care (2015), synthesizes an extensive literature about hormonally-driven processes of parturition and the early postpartum period. Available from-[http://www.nationalpartnership.org/our-work/resources/health\\_care/maternity/early-skin-to-skin-contact.pdf](http://www.nationalpartnership.org/our-work/resources/health_care/maternity/early-skin-to-skin-contact.pdf)
8. Al-Morbaty HY, Ashmauey AA, Al-Ghamdi AA. The Effect of Mother and Newborn Early Skin-To-Skin Contact on the Duration of Separation and Expulsion of the Placenta. *J Nurs Health Stud.* 2017;2:2. doi: 10.21767/2574-2825.100016. Available from: <http://www.imedpub.com/articles/theeffect-of-mother-andnewborn-early-skintoskincontact-on-the-duration-ofseparation-and-expulsion-of-theplacenta.php?aid=19381>
  9. Parikh PM et al. Effect of early maternal newborn skin to skin contact in labour room on third stage of labour and success at breastfeeding. *Int J Reprod Contracept Obstet Gynecol.* 2018 Dec;7(12):5011-5015. Available from: [https://www.researchgate.net/publication/329215847\\_Effect\\_of\\_early\\_maternal\\_newborn\\_skin\\_to\\_skin\\_contact\\_in\\_labour\\_room\\_on\\_third\\_stage\\_of\\_labour\\_and\\_success\\_at\\_breastfeeding](https://www.researchgate.net/publication/329215847_Effect_of_early_maternal_newborn_skin_to_skin_contact_in_labour_room_on_third_stage_of_labour_and_success_at_breastfeeding). <http://dx.doi.org/10.18203/2320-1770.ijrcog20184957>
  10. Tarun Zekiye et al. Effect of skin-to-skin contact on the placental separation time, mother's oxytocin and pain levels: randomized controlled trial. Article in *Turkish Journal of Biochemistry* · November 2018. DOI: 10.1515/tjb-2018-0145. Available from: [https://www.researchgate.net/publication/328966419\\_Effect\\_of\\_skin-to-skin\\_contact\\_on\\_the\\_placental\\_separation\\_time\\_mother's\\_oxytocin\\_and\\_pain\\_levels\\_randomized\\_controlled\\_trial](https://www.researchgate.net/publication/328966419_Effect_of_skin-to-skin_contact_on_the_placental_separation_time_mother's_oxytocin_and_pain_levels_randomized_controlled_trial)
  11. Mountaha Kahidm Mejbel, Rabea M. Ali. Effectiveness of Skin- to Skin Contact on duration of third stage of labor in Baghdad Teaching Hospital: Comparative Study. *Kjfn.* 2018;8(2). Available from: <https://www.iasj.net/iasj?func=fulltext&aid=65569>
  12. Sharma Amit. Efficacy of early skin-to-skin contact on the rate of exclusive breastfeeding in term neonates: A randomized controlled trial. *African journals online* 2016;16(3). Available from:- <https://www.ajol.info/index.php/ahs/article/view/146092>
  13. Saxton Anne et al. Does skin-to-skin contact and breastfeeding at birth affect the rate of primary postpartum haemorrhage: Results of a cohort study. *Journal of Midwifery* July 2015;31(11). DOI: 10.1016/j.midw.2015.07.008. Available from:- [https://www.researchgate.net/publication/280239120\\_Does\\_skin-to-skin\\_contact\\_and\\_breastfeeding\\_at\\_birth\\_affect\\_the\\_rate\\_of\\_primary\\_postpartum\\_haemorrhage\\_Results\\_of\\_a\\_cohort\\_study](https://www.researchgate.net/publication/280239120_Does_skin-to-skin_contact_and_breastfeeding_at_birth_affect_the_rate_of_primary_postpartum_haemorrhage_Results_of_a_cohort_study)
  14. Epsino-luis Fernando sanchez et al. An educational intervention to implement skin-to-skin contact and early breastfeeding in a rural hospital in Mexico. *International Breastfeeding Journal* 2019;14(8). Available from:- <https://internationalbreastfeedingjournal.biomedcentral.com/articles/10.1186/s13006-019-0202-4>
  15. Marín Gabriel MA, Llana Martín I, López Escobar A, Fernández Villalba E, Romero Blanco I, Touza Pol P. Randomized controlled trial of early skin-to-skin contact: effects on the mother and the newborn. *Acta Paediatr* 2010 Nov;99(11):1630-4. doi: 10.1111/j.1651-2227.2009.01597.x.PMID: 19912138 Available from:- <https://www.ncbi.nlm.nih.gov/pubmed19912138>
  16. Rasha Mohamed Essa, Nemat Ismail Abdel Aziz Ismail. Effect of early maternal/newborn skin-to-skin contact after birth on the duration of third stage of labor and initiation of breastfeeding. *Journal of Nursing Education and Practice* 2015;5(4). Available from <https://pdfs.semanticscholar.org/c656/932d2880844da417348338a809682ec5f16d.pdf>
  17. Safari K, Saeed AA, Hasan SS, Moghaddam-Banaem L. The effect of mother and newborn early skin-to-skin contact on initiation of breastfeeding, newborn temperature and duration of third stage of labor. *Int Breastfeed J* 2018;13:32. Published 2018 Jul 16. doi:10.1186/s13006-018-0174-9 Available from:- <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6048813/>

